Waste-Basket Surgery

Gordon S. Seagrave

Central BAPTIST
THEOLOGICAL SEMINARY
presented by

MR. WARD BAYLES

KANSAS CITY, KANSAS

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Church
Howard, Ko

Name of Reader.	Dated begun	Date finished
Martha J. Anderson	July 21-30	July 21-
Mrs Geo T. Ellis	Sept 3-30	Sept 5-
Mrs J. A Maben	Sept 18 30	Oct 1-
Mrs H.M. Jones	Oct. 1-30	Oct. 11-3
Mrs Austin Kinzey	Jan 1- 31	Jan 15-
Mrs. A.S. Combs	Jan 17-31	Jan. 18-3
Mrs. J.W. Bayles		Mar. 19-3
J. W. Bayles		Mar. 23-3

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THE OLD HOSPITAL
Namkham, Burma

WASTE-BASKET SURGERY

The work of the Baptist Hospital at Namkham, Burma, received the commendation of Sir Harcourt, Governor of Burma, and of the Commissioner of the Northeast Frontier Division and the Inspector-General of Civil Hospitals, during a tour of inspection in 1926. Dr. Gordon S. Seagrave has been in charge of this hospital since 1922. Namkham is in the northern part of Burma, close to the Burman-Chinese boundary, and the mission there serves the Kachin and the Shan races. A military road recently built to Lashio has added importance to the center. The hospital work has constantly expanded. About one hundred and fifty major operations were performed in 1927, as against four in 1921. In 1927 over five thousand people were cared for by the dispensary, and over five hundred and fifty were inpatients in the hospital.

When he undertook mission service in Burma, Doctor Seagrave returned to the land of his birth. He is the son of Rev. and Mrs. A. E. Seagrave, missionaries in Rangoon, and was born in that city. He is, indeed, a fourth-generation missionary, for his mother is the daughter of Rev. J. B. Vinton, and a grand-daughter of the pioneer Rev. J. H. Vinton. Two sisters of Doctor Seagrave are also serving in Burma.

After receiving his early education in Rangoon, Doctor Seagrave came to America. He is a graduate of Denison University, and received his M. D. from Johns Hopkins University. After his graduation in 1921, he spent the summer as resident physician in the Robert Garrett Sanitarium for Children, in Maryland, and then served as an interne at Union Memorial Hospital in Baltimore. In September, 1920, Doctor Seagrave was married at Carlinville, Ill., to Miss Marion G. Morse. In August, 1922, they sailed together for Burma.

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WASTE-BASKET SURGERY

By Tiffler
GORDON S. SEAGRAVE, 1897-

174p. illus. 20cm.

TC
Missions, Medical
Burma. Missions

PHILADELPHIA
THE JUDSON PRESS
BOSTON CHICAGO LOS ANGELES
KANSAS CITY SEATTLE TORONTO

[1930]

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CENTRAL BAPTIST SEMINARY
KANSAS CITY 2, KANSAS

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THE JUDSON PRESS

Published February, 1930

PRINTED IN U. S. A.

266.61591
S438

To
Those Members
Of the Medical Profession
Who on the Christian Frontiers
Of China, India, and Africa
Are Specializing in
Waste-Basket Surgery

FOREWORD

FREQUENTLY one hears today superficial and flippant criticisms of our missionary enterprise. Uninformed and spiritually lethargic members of churches here and there, propound the query, " Why send missionaries to other lands when there is so much need here at home? " Others treat the missionary program as an impertinence on our part and refuse their support on the ground that the religions of the peoples of other lands are adequate to their needs and that we should not disturb them. The command " Go ye, therefore, and teach all nations " is by some set aside entirely and by many treated with indifferent concern.

Meanwhile, the missionaries of the gospel of Jesus are pouring out their lives in an heroic effort to make his name

known throughout the world and his saving power unto all nations. Their loyalty to God, their sacrifice for others, their courage in the face of obstacles, their fortitude in suffering, and their sacrificial renunciation of self in behalf of our brothers and sisters of other races, is one of the beautiful and inspiring ministries of contemporary Christianity.

We need to know these valiant soldiers of the Cross who on lone sectors fight the loving warfare of the Prince of Peace. We need to have our selfishness shamed by their unselfishness, our zeal quickened by their enthusiasm, our own efforts in pleasant places increased by the example of their service in the trying places of acute need. For all our dreams of the glorious dawning of the day of universal peace will continue to be but dreams until the gospel of Christ unites the world in the brotherhood of man.

Foreword

This little book, by one of our younger and one of our most valiant servants of Christ, is the revelation of the type of man and of service that is helping to mold this world of ours nearer to the heart's desire. Here is high heroism, dynamic energy, amazing skill, profound consecration, and surpassing faith. Here are leaves taken from the experience of a real man who has caught into his heart the tenderness and the selflessness of the Nazarene. Running through the humor and the pathos of this intensely personal narrative, is a will to serve that refuses to be daunted by obstacles and that accepts second-hand tools to render first-class service. It is written with engaging frankness and modesty. It has a tang and a freshness that is irresistible. It contains a splendid tonic for all whose enthusiasms lag in the cause of service. It answers with the logic of undaunted helpfulness

the sophistication of those who question the value of missions. It should be read and then passed on that it may enkindle in many hearts the fine devotion to Jesus and the loyal service to men which burns with such brightness in the heart of its author.

A. Ray Petty.

First Baptist Church,
Kansas City, Missouri.

CONTENTS

		PAGE
I.	Contrasts	1
II.	The Shans and Direct Evangelism	10
III.	The Apologetic for Hospital Work	21
IV.	Practising Medicine and Surgery—and How!	35
V.	Our Model Nurse Factory	43
VI.	Waste-Basket Surgery	65
VII.	The White Cross	78
VIII.	Scientific Medication	85
IX.	Indoor Sport	101
X.	Babies	123
XI.	Freaks	133
XII.	Mother Hubbard's Cupboard	144
XIII.	High Finance	147
XIV.	Results	156
XV.	Optimism	170

LIST OF ILLUSTRATIONS

OPPOSITE PAGE

The Old Hospital ..... *Frontispiece*

The Line Forms on the Right to Receive Medicines in the Jungle 18

This Leper Had to Be Driven Out 38

One of the Kachin Nurses 54

Goiters à la Kachin 70

Two Convalescing Goiter Patients 96

Three More Goiters Arrive for Treatment 134

My Operating-room 158

I

CONTRASTS

JUDGING from what one reads in the newspapers, the only kind of doctors we have in the United States are specialists. I visited the Mayo Clinic last year. There I heard Doctor Mayo's definition of a specialist. He says that a specialist is a man who knows more and more—about less and less. And there seems to be a great fear, at the Mayo Clinic, that after a few years our specialists may be men who know an awful lot—about nothing at all. We Americans are specialists in Foreign Missions. We know an awful lot about the theory of mission work, but very little about the practise of it or of the actual conditions under which mission work is done. I was that way myself when I went as a medical missionary to Burma six years ago. In common with all of our

younger generation I thought I knew an awful lot about medical mission work. I had read the sort of medical mission literature that one reads in the colleges, telling of such and such medical stations with their tremendous practise, crowded wards, immense need, opportunity for research, and all that sort of thing, and I believed that this was universally true of every medical mission station.

I should have known better. My boyhood in Burma, my inheritance from a family who have been missionaries in Burma since 1832, something of the combined knowledge of the other twenty-two missionary members of our family should have warned me—and in a way, I was warned. I did not expect a palatial hospital. I had fortified myself with the sort of instruments and sterilizer which we shall describe later. But in our abysmal ignorance, we expected to find a hospital crowded with sick, the sides bulging out like some of the cartoons one sees of the subways in rush hours. We expected

the medical work to be the work of prime importance, far-reaching in its influence upon the people. We expected to be called on daily to demonstrate the wonderful skill of Western Medical Science, spelled in capital letters! Else why the insistence upon my studying at Johns Hopkins, the premier of all American medical schools? And we dreamed of the vivid way in which, through medical work, we could show Christ to these people.

And what we found! After a long hard trip on tiny ponies, we rode up the Oilaw Road which divides our Shan Mission for the Buddhists on the South from the Kachin Mission for the Animists on the North. Over on the right was a dark gloomy building on stilts. My hospital! We looked inside; not a patient graced the wooden beds, the tops of which were occasionally of hide, mostly of wood. The floors were covered with stains of blood and pus and medicines which had soaked into them during the twenty or thirty

years. They were made of soft spongy jungle wood, and no amount of scrubbing would make the floor clean.

There were no mattresses on the beds, and only three or four blankets in the whole hospital.

We went on a little more soberly. We passed another building, larger than the hospital. My school, if you please. Inquiry elicited the fact that I had in addition two or three other schools going on at the time, and during most of our term of service we had six or seven schools, scattered here and there through the valley and the adjoining valleys. It developed that I was the superintendent of all these schools. Mine was the responsibility of keeping the teachers from playing hookey! Mine the job of seeing that the number of pupils in each school did not decrease; for if they decreased, we would lose our government grants. Mine the task of seeing that the high standard of excellence of previous years was maintained.

Again we walked along. A gentleman met us, dressed in a lovely silk shirt. He was introduced as my chief evangelist. I got a lot of kick out of that word "chief," for I was beginning to feel pretty important by this time. It developed that I had several more of this article. And it was my duty to keep them happy in their work: optimistic in the face of discouragement. It was up to me to make them preach eight hours a day even if there was no one to preach to. I was the official who paid them their infinitesimal salaries every month, so it was up to me to explain to them why a preacher must receive only a fraction of the salary of a school teacher.

I had had almost enough blows for this first day at Namkham, but I had my last and most staggering blow when they pointed to the two-story girls' dormitory and told me that the lower floor was crowded with hand automatic looms on which I must teach the young Shan hopefuls how to weave silk. And the only

loom I had ever seen before was one on which our grandmothers wove rag rugs! Imagine a Johns Hopkins Graduate teaching any one how to weave silk!

Mercifully, they let me rest, after that. It was several days later before they had the courage to show me the Christian villages of which I was Lord Mayor and Lord Chief Justice, and also Lord High Executioner if any one needed to be spanked; and then they took me to a large area of ground several acres in size. On it were growing innumerable small bushy trees. This was the first time I had seen the mulberry, and I was supposed to rear the elusive silkworms by the thousand, drown them in hot water, and reel off the silk for weaving in our weaving-school.

We didn't need to go any farther to see why the hospital was empty; why they had never had more than thirty or thirty-five in-patients a year; why my predecessors had confined their medical efforts chiefly to a large dispensary.

Here were these men, graduates of some of the finest medical schools in the country. One was a graduate of Ann Arbor, one of the University of Pennsylvania, and so on down the line. Trained to do excellent medical work, but so bound down by the fact that they had to superintend schools of all sorts, evangelistic work, mulberry plantations, to build buildings, etc.—I myself had to put in a sewer—that they had no time left for extensive hospital work.

You can imagine how distressed we were. We had been convinced of the value and need of true medical mission work; we had been trained for it; and here we were on the Chinese border of Burma, too far away to get back to the good old U. S. A. We were without medical work to do, but with a lot of other work for which we had no special ability. Those first few months were nightmares. Twenty years of planning and training for medical work had apparently been nothing but vanity. There

was nothing of interest in the ordinary dispensary work. Any one with a few months' training could sell a man cinchona or quinine when he asked for them. Any one could pound up iodine and relay saccharine crystals, of which the natives are very fond. Any one could give carbolic vaseline to a man with a sore toe. I hadn't wanted to be an imitation druggist; I had wanted to be a real doctor. And what price surgery! Why, in our dispensaries you couldn't even preach—not to the Buddhist Shans. They would not stay. Many of their diseases, even if they are not surgical, require intricate, prolonged treatment. The dispensary doesn't accomplish a thing in the treatment of these real diseases.

It did not seem to me the highest calling for a doctor to abandon his knowledge of medicine and carry on house-to-house preaching for which he was not particularly well adapted. Nor yet did it seem fitting for him to spend all of his time as a teacher in spite of the evangelistic re-

sults which are attained in the schools. I was trained as a physician and surgeon, and we wanted our missionary work to be done through this medium of medicine and surgery. We felt that a good hospital would be "its own excuse for being." We recalled that in China, in Persia, in Arabia, among the women of India, medical missions had succeeded where everything else had failed. It certainly seemed fair to suppose that medical work might have the same effect among the Shans who have the reputation of being the hardest people to convert in Burma.

II

THE SHANS AND DIRECT EVANGELISM

THERE seemed to be no hope for medical work, so Mrs. Seagrave and I decided to be as graceful about it as we could: forget medicines as fast as possible, and try out direct evangelism.

The first thing to do, of course, was to learn the language. Now that is no mean task in Burma where races and languages are legion. In most of the fields where Baptist missionary work is done, there is some approach to the ideal of a common language generally known by the various peoples. All of the missionaries in one station learn the same language. There are language schools, where possible, and for the first year or two the missionary has no field responsibilities. He spends the great part of his time learning the

language and customs of the people among whom he is to work. At the end of this preparation he takes up his real missionary work. For example, missionaries to the Congo spend a year in Belgium learning French which they use largely in their work. Missionaries in East China have the language school in Shanghai.

When this is possible, the work in each station can be scientifically portioned out to each missionary. The evangelistic work for all the peoples is in the hands of a seminary trained man of real experience who is capable of giving the work the sort of oversight it needs and deserves. The educational work also is cared for by a trained educator. The doctor doctors, and the nurse nurses. Where this is done, there is little wasted energy. There are fewer mistakes made. The spiritual results are greater.

In Burma, aside from Judson College and one or two of our tremendous missions, the " show places " of Burma, this

plan cannot be followed. There are too many different languages. So in one station there is one missionary handling the educational, evangelistic, building work for the Karens, and another missionary does all the same work over again for the Burmans. In our Shan States the condition is still worse. There are too many races and too few missionaries. Here the mission work is divided not between two races but between two groups of races, depending upon their religious affiliations. I had a coworker, Mr. G. A. Sword, who had all the animistic races—the devil-worshipers. There are among these several kinds of Kachins with languages unintelligible to each other, and there are the Lisus. These animists are mountaineers. They are more aboriginal than the Shans. In the "Triangle," an as yet unadministered territory in the extreme north of Burma, the Kachins still have slavery and human sacrifice. They are the apparent originators of the art of trial marriage, from whom, rather than

from some new and higher development of our marvelous white civilization, we have copied the custom in this newer age. A few visits to the unreached villages of Kachins of the wilds gives one the impression, as one sees some of the results of trial marriage, that perhaps trial marriage is not an unmixed blessing in civilization.

These animistic peoples are very receptive to Christianity, and Mr. Sword has a very large and important work among them. There are many Kachin schools and churches, which he has developed, reaching far out into the State of Mong Mit as well as in our own State of North Hsenwi. Whoever will come and see the difference between Mr. Sword's Christian Kachins—especially the products of the schools—and the heathen aboriginal Kachins of the mountain villages nearby, will at once become convinced of the value of missions. A race of people who never did a stroke of work, but lived off the jungles and by banditry, are becom-

ing real workers, with a fine spiritual development.

To me belonged all the Buddhist races, typified by the Shans, the rulers, still, of the country, although under close surveillance by very fine British officials. With the Shans belong also the Palongs; a very timid people—scared of white men, scared of Shan rulers; scared of Kachin bandits, scared of themselves, and especially scared of the surgical knife. We have tried to reach the Chinese, though to what religion our Chinese really adhere, I do not yet know. It seems to be a cross between Buddhism, Confucianism, and a type of animism very different from the Kachin type. Recently, some groups of Lahus, who believe in animism of a type similar to that of the Chinese, have migrated into our State, and we are working strongly among them. The Shans are plainsmen.

So we had these four races, each of which knows the Shan language, more or less, and Shan was therefore the lan-

guage which we studied—and I don't mean "maybe"! For the greater portion of the day we studied Shan, written and spoken, grammatical and slangy —and after three or four months I preached my first sermon in Shan. My, but I was stuck on myself! I hadn't yet learned to pray in Shan. It took me four years of hard work before my tongue could wander through the maze of honorific words with which one must close every sentence when talking to the Deity. And I had to yell for help several times before I finished that sermon.

I suppose, to be frank, that I had better admit that that sermon of mine was probably the worst sermon that has ever been preached in any language. You see the trouble is that Shan, like Chinese, has to be sung and not talked. Each syllable can be sung in five different ways, and every different tone means a different thing. Really to talk Shan one needs a nice organ accompaniment, and one's mouth should be full to overflowing with betel-nut. One

should also not be in a hurry, as many of the words need to be held on to, pondered over, looked at, and fondled before one finally is allowed to part with them. Because of the inability of the white man to pet these words properly, many of us missionaries say frightfully embarrassing things when we are trying our best to be polite. The day I preached my first sermon, I suppose that I must have been singing most of the time in the wrong key, for the people certainly did not understand much of what I was trying to say.

However, we felt that now we were ready to begin some really definite evangelistic work, and I organized a gospel team. School had closed, so I took with me a half-dozen of the very best men we had, some evangelists, the rest teachers. We went from one heathen village to another, and, since we anticipated difficulty persuading the people to come to our meetings, we took along a mule-load of bribes in the form of medicines. On our arrival in a village our men would go from

house to house yelling out that the white doctor had come and would be glad to bestow medicines gratis upon any one who had an ache or a pain. Well that was too good to miss, so sometimes two or three hundred people would crowd around and we would give each some sort of medicine, and in the evening we would begin to talk. As long as we talked about really interesting matters like sky-scrapers, submarines, aeroplanes, or automobiles, which they had never seen, they would listen to us, with their eyes popping right out of their heads, but as soon as we mentioned the name of Jesus Christ, every single man, woman, and child got up and went out. This did not happen only occasionally. It happened in every single village until finally we reached a village where they would not allow us to enter or give us a place to sleep, and we had to make a forced march through the thick of the jungle in the dead of night until we arrived at our nearest school building. I have always thought a lot of hymns, but

never so much as after that night; for we didn't have a gun or weapon of any sort to keep off the wild animals, so we began singing hymns, and it worked so well that we have been singing hymns ever since.

We talked over this disastrous experience in evangelism, and wondered where the difficulty lay. We felt that it might be because we were trying to reach too many people at once—a sort of mass evangelism. So we decided to try out personal evangelism, and we did. Instead of taking a gospel team, I took only our chief pastor. He was very valuable, because he could preach and pray in seven different languages, one right after the other without ever singing in the wrong key. We went from house to house and got hold of only a single man at a time, making him stay and listen to what we had to say. And sometimes twenty or thirty minutes would go by while we preached without a single interruption. Then, when we were certain that we were at last getting our message across, the man would break

THE LINE FORMS ON THE RIGHT TO RECEIVE MEDICINES IN THE JUNGLE

right into one of our sentences with an exclamation such as this: "Those aeroplanes which you speak of in America—*do* they *really* fly?" He hadn't been getting a word. His mind was thousands of miles away.

The reason for all this, of course, was that these Shans are Buddhists. They have a civilization of their own, and they had an idea we were spreading some new form of propaganda to destroy their civilization. They had no conception of the nature of Jesus Christ and of his mission to earth, and they weren't willing to listen.

Another form of evangelism had been tried out in our State. Thousands of tracts had been distributed among the people. Every one seemed to be glad to get them. They would take duplicates. A wonderful impression was made upon the missionaries. They thought the Shans were at last awakening to the value of the gospel—until they discovered that the reason the

tracts were so eagerly sought after was because they made excellent wrappers for the great cheroots which the people smoke. Paper costs a lot on the frontier. The bark paper which the Shans make is not very suitable for cigarmaking. Magazine and newspaper are common only to the white man. The missionaries therefore proved to be a great economic blessing to the people when they began to hand out the tracts —the very thing the people had been looking for—and they did it gratis!

III

THE APOLOGETIC FOR HOSPITAL WORK

We felt that we must create an audience—persuade the people somehow or other to listen to what we had to tell them, and put Jesus Christ before them in such a way that they might understand and be convinced. The work of our predecessors made it possible for us to begin at once to build up our hospital practise. We delegated every bit of work that we possibly could to the Shans who were best trained, and our chief effort was devoted to the hospital. The schools and evangelistic work have prospered rather than been hindered by this change in policy.

Soon the patients began to come. And they came with every conceivable complaint.

The people are sufficiently civilized there to have cancers, and some of them are beauties. But their favorite tumor is the adenomatous goiter. And my, but they do do a good job at having goiter! Every visitor to North Hsenwi State is astonished at the number of tremendous goiters. In one or two villages where I have been every single man, woman, and child over eight years of age has a goiter. And some of them are enormous. The smallest goiter I ever was allowed to remove was the size of a baseball, and the largest one we removed, and it was one of the easiest operations we ever had, was so perfectly tremendous that I decided to take it up and show it to Mr. Sword. When he saw me carrying it up the stairs to his veranda he said, with a laugh, "Seagrave, where did you get that ham?"

There is a great deal of the amœbic dysentery. They say that the Chinese drink tea almost exclusively. That is probably the reason why there are so

everlastingly many Chinese still alive. Our people are not so particular. They drink anything that seems to be water, and it is often muddy and always unfit to drink. The little streams which they lead into their villages to supply them with water all have their source up on the mountainside near some mountain village, so that they are practically the sewers of those villages. There is a very large Chinese community in our State where they do not have these streams. Reservoirs are therefore prepared near the city, and in order to waterproof them —they have no cement—they wait until the first days of the rainy season when the ground is very soft and moist. Then they drive down a herd of water buffalo which are ridden round and round the reservoir until their feet have churned up the surface of the ground into a thick, slimy, nasty, vile-smelling mud. The rain-water collects here for the four or five months of the rainy season and supplies them with water for the remainder

of the year. They bathe by this reservoir, wash their clothes in it, drive down their animals to drink, and then take buckets of it back home to use in cooking.

I had a patient once who was paralyzed on one side. He sent his son out to get water for him to drink. The boy did not care particularly where the water came from, so he sometimes got it from our irrigation ditch, sometimes from our hand-basins, both before and after we had washed our hands in them; and one night he came into the operating-room, felt around until he found something wet, and took his father a drink of bichloride of mercury. We had a lovely time washing him out.

Of course our hospital is not screened, and mosquitoes which carry malaria are so plentiful that in order that our nurses may be kept alive on night duty they have to paint their legs nightly with oil of citronella, which has a delightful odor like a soda-fountain that has been wrecked.

Almost every one is the proud pos-

sessor of a large spleen. Sores and ulcers of all sorts occur in profusion. I remember one day a patient came with a very large one on his back. The whole thing was alive and moving so I decided to count them as I removed them. We counted one hundred and ten maggots before we got tired and rested for a day.

Beriberi is extraordinarily common in our State. We see a large number of the milder cases with attacks of swelling and profound weakness of the legs occurring every year. We wonder sometimes whether or not the children pretend that they have beriberi, since it gives them such an excellent excuse not to get up and go to school in the morning. Beriberi frequently, however, leads to a sudden collapse of the heart with death in twenty-four hours, and few of them seem properly to appreciate having this type.

So very many of our diseases are atypical. I have never seen a case of typical appendicitis there. For one thing they never come to us for operation until the

appendix has been ruptured for three days or so, and the only case I ever cured was a man whose appendix had been ruptured for thirty days. I suppose he got well because I couldn't find the appendix in the midst of the big abdominal mass, and only put in a drain and ran away. But none of these cases had the usual syndrome of appendix symptoms. The only cases I saw of typical appendicitis did not have appendicitis at all. We have several times boiled up the instruments and actually had the nurses scrubbed up and waiting when the last examination of red blood cells revealed malaria parasites, and the patient was cured with quinine rather than the knife.

The people have naturally excellent teeth. But, by the time they have spent twenty years continually chewing our Shan variety of betel-nut covered with red lime paste, their teeth need a lot of pulling. A hundred and fifty in one day is our record.

There are a great many obstetrical ac-

cidents in the Shan States, and the only midwives available feel that obstetrics is the art of the tug-of-war. I have seen an arm completely pulled off a child. After an easily performed breech delivery the midwife who had failed in her tug-of-war threw up her hands and exclaimed, "Just look how strong these white men are!"

I have never yet been called to take care of a normal obstetrical case in a heathen family. This is not due to caste. We have none. They feel that childbirth should be a normal function and call only when the woman has been in unsuccessful labor for from two to seven days. We have a truly remarkable time on some of these visits. All our forceps deliveries were performed with the patient lying on the dirty floor.

Not having sufficient automobiles and aeroplanes to furnish us with accident cases, we have to rely upon the wild animals. We seldom have much trouble with leopard and tiger bites, however, for

these cats are very skilful, and their victims go right on to Glory without worrying about the absence of physicians. On the other hand the bears rise up, give you a big welcoming hug, and bite you right in the face, and always ruin your complexion.

There was a man down near the great ruby mines of Mogok who was thus welcomed by a bear, and he could find no doctor to care for his wounds, so he got well crooked. A year later, a woman upon whom we had operated for cancer was advertising us down in his State and advised him to come to us for plastic operations. When he came in the hospital we almost fell through the floor. His left eye was down on his left cheek, the left side of his face didn't look like much of a face, and the right cheek had been pierced through into the mouth so that the ducts of the salivary glands were severed. As a result, every time he looked at an appetizing meal, the saliva flowed down his neck. We were able

eventually to do a good bit for him. The point is, however, that he had to go a hundred miles to find a surgical hospital.

Medicine is a hereditary subject among our Shans. A number of the medicines which they use are perfectly ridiculous, others are obscene.

There was a certain Palong gentleman who was an epileptic. Now it is wise for an epileptic to be discreet as to where he has his fits. This gentleman, however, had his last fit not wisely but too well—in front of the fire. When his friends came back and pulled him out of the ashes, the muscles of his right forearm had been burned away until you could see the radius in all its glory. The upper arm and his side had also been burned in deeply. We were delighted that at the end of a month he was still alive and doing well. We were deciding to do some skin grafting the next day when we suddenly returned to the hospital to find him almost dead. We couldn't imagine what was wrong with him, for we knew it

wasn't our fault. We sent for his friends and asked them whether they had done anything? "Yes," they said, "we were disappointed because he wasn't well yet, so we put on some of our own medicine."

"What medicine?" I asked.

"Tobacco."

We snatched off the dressings and found all that tremendous raw area covered with powdered tobacco leaves. We scrubbed it off and gave antidotes for nicotine, and he got well—no thanks to his friends.

A certain Chinese gentleman looked out of his front door one morning to find a huge bear ruining his garden. He couldn't stand that, so he snatched up the only available weapon, a small dagger, and went out to order the bear off. Like all nice bears, the bear refused to be hurried, so they got into a terrible argument, and before the gentleman finished killing the bear, the bear had completely ruined his personal beauty. They carried the patient to me the next evening. There

was about a half-inch layer of some peculiar medicine all over his poor old face. I was anxious to acquire all the knowledge I could, and so they told me they were homeopaths. They believed in curing like with like, so, since the bear was the cause of the wounds, they had to cure the wounds with bear. And they had taken the bones, hurriedly dried and powdered them, made a paste, and spread it all over the patient's sadly mutilated countenance.

Deer horns in the velvet, monkey blood, and all that sort of thing are very effective for everything. The urine of a black bull is the commonest used cathartic, while the urine of a buffalo, preferably a blonde one, is a sure cure for beriberi. Opium and mercury are the only drugs about which they really know anything. If a man has a pain, opium will stop it—temporarily. If he has dysentery, the tenesmus and diarrhea are relieved—temporarily. If he has a cough, even tuberculosis, opium relieves it temporarily, and

sometimes permanently! And if he has malaria, opium makes him sweat, so he thinks he is better—and that is half of the game.

One of our missionaries went to call on a Burmese doctor and was preaching to him, when a little boy ran in and said, "Doctor, my grandmother is awfully ill and wants some medicine right away!" The doctor never asked him a word but took down from a shelf a bottle containing about a gallon or so of a dark fluid, poured out a few ounces, gave it to the boy and told him to have his grandmother take a teaspoonful or so every two or three hours. When the boy was gone the missionary said: "Doctor, was that an old patient of yours? How did you know what was wrong with her?" The doctor admitted that he had never seen the old woman, and had no idea what was wrong with her. "But," he said, "we Burmese doctors know that the human body is subject to only one hundred diseases, and we have one medicine which will cure

each one of those diseases. So we mix them all up together in that bottle, and no matter what is wrong with the patient we give him some of that remarkable medicine, and he is bound to get well."

Their idea of surgery seems to be limited to bloodletting. Malaria patients die because their blood is destroyed by the malarial parasite. But you hardly ever are called to the home of malarial patient but you see the incisions over the veins of the forearm from which some fool doctor had been removing a pint or quart of blood.

Doctor Hanson once saw some Kachins removing a pterygium (a fleshy growth over the cornea) from a patient's eye with sharpened bamboos!

So the opportunity for medical work is tremendous. In the State of North Hsenwi alone are 412,000 people for whom we are responsible spiritually as well as physically. I do not know the area of that State, but the combined area of the three States from whom we draw

patients is about as large as Indiana, and ours is the only in-patient hospital, and I am the only white doctor! There are two or three native dispensaries, with Government men in charge.

IV

PRACTISING MEDICINE AND SURGERY—AND HOW!

Medical needs such as these, of course, make Namkham a happy hunting-ground for a doctor. Patients began coming to us in increasing numbers. We had little money with which to buy medicines. In deciding which of two or three medicines to give to a patient we never dared give the one best suited to him, but rather the one which cost the least, unless the patient were deathly ill, in which case we used the best available. I had to drive away a leper from a little house we had built for him, burning the house down in order to persuade him to leave. And all this because our supply of chaulmoogra oil had given out, and we could not find funds to buy more.

We have never been able to afford the

carefully refined and prepared medicines that we use in the United States except under exceptional circumstances. In order to reduce the cost of medicine we bought crude drugs from India in bulk, and our nurses mixed them up, rolled them out with a spatula, cut them into pills, and rolled each pill by hand. We make hundreds of thousands of pills in this way every year. Mr. Jury, one of our Burma missionaries, in 1927 gave us a tiny pill machine which cuts up twenty-five pills at once; and since then our nurses would rather cut pills than do anything else.

Our chief difficulty was in the surgery. We dreaded the day when our first goiter case should come to us for fear it would be a large one. And, sure enough, it was about the size of an indoor baseball, and looked as if it were tied up in about fifteen or twenty jugular veins. I was scared to death and begged the man to go home again. I hadn't ever seen a goiter that large removed, and we had no com-

petent assistants. I told him I was afraid he would die. But he said he didn't care, he must have the goiter removed. So we told him that if he didn't mind dying, we would do the very best we could to accommodate him. And the next day we began.

The biggest anxiety was in regard to the anæsthetic, for during our previous operations the patient would either be walking off the table in the middle of the operation or would stop breathing because he had too much anæsthetic, and we should be inducing artificial respiration with all our might. I finally went to Mrs. Seagrave and begged her to come down and pour on the chloroform while I told her how much to pour. So she came, and has been pouring chloroform ever since in addition to all her other teaching and supervising work about the mission.

So, while she poured, I cut, and I had to cut just about everything that man had in his neck before I finally got the goiter out at the end of three hours and a

half. I was almost as worn out as the patient when we finished, but he was still breathing, so we joyfully sewed him up and put him to bed. Then I sat down beside him and waited for him to regain consciousness. As soon as he could understand everything I was saying I explained very carefully in his own language what a terrible operation he had gone through. I told him he was very liable to die from the shock of the operation, and begged him not to turn over on his side for at least twenty-four hours or to sit up in bed for at least eight days. He promised " Cross his heart and hope to die " that he would be a good boy, so of course, when I came back to the hospital three hours later, I found him already sitting up in bed.

The next morning we were called at dawn to visit a sick man over in China. We hurried down and found the river which forms the boundary—it is only about a mile and a half from our house, and we do a lot of work in China—in

THIS LEPER HAD TO BE DRIVEN OUT

flood. The bridges had all been washed away, so we had to cross into China in dug-out canoes. It was late afternoon before we returned to our station, and I was afraid my goiter patient must be dead by then. As we walked past, we noticed that the Kachin Christians were all spread out on their front lawn having a wonderful Thanksgiving dinner—and it certainly smelled good. You see, I was born out in Burma, and I don't mind the smell of the rotten fish and rotten beans which they eat, and I rather like to eat them myself. So when Mr. Sword stood up and called me over to eat with them, I was frankly delighted. I hurried over and as I was waiting to be served, I looked around to see if I could recognize any one present.

Over in one corner of the compound was a man dressed in the most peculiar garment I ever saw. His clothes were not Chinese. They certainly were not Burmese or Kachin or Shan or Hindoo, or French or anything I had ever seen

before. What they looked like was something like a lady's apron down the front of him to his knees, and " a good bit less than 'arf o' that be'ind "—nothing at all, in fact. I was so interested that I went over to investigate. As I drew closer, I noticed he had a bandage around his neck. He was my goiter patient. He had smelled the food cooking over there a couple of hundred yards away from the hospital, and he had gone over to help them eat it up. And still he couldn't die. I did the best I could to kill that man while he was in the hospital, and he got well in spite of all I could do, and has been advertising us all over the Chinese border ever since!

A man came to me later for an abdominal operation. He had a localized peritonitis so I had to drain. But we had none of the drainage materials that we would have used in America. All I could find was a rubber tube about as big around as your finger and hard and brittle from its years of experience in our

hospital. And I stuck that in for a drain. Three days later, when I came to remove the drain, it was nowhere to be found. I was terrified. I was certain we should have to cut him open again and hunt around in his abdomen to see if we could find the tube. But I inquired if he knew anything about it, and he said certainly, it had been bothering him a little the day before, and he had pulled it out and thrown it away. We were convinced that he was lying, but we decided to look around first before doing anything so drastic as to cut him up again. We walked from ward to ward, looking for it under the beds and in the corners without success, so you can well imagine how perfectly delighted we were when we got out on the front porch and found a baby using that tube for a pacifier! He had almost pacified himself permanently.

We did a hernia operation one day under all aseptic precautions, put on a dressing, and didn't bother the patient again for eight days. When we came

back to remove the stitches, there wasn't one in sight, and the wound was wide open. I inquired again, and the patient finally admitted that the wound had been itching, and he had scratched just a little bit. Well, he had scratched hard enough to get those interrupted sutures out of there.

V

OUR MODEL NURSE FACTORY

In order to do at all satisfactory surgery we had to have nurses. We had no American nurse during that first term, and it is only because of the generosity of Mrs. Eugene Levering of Baltimore and friends in the Baptist Temple in Philadelphia that we shall have an American nurse during this next term of service. Imagine what practise in a hundred-bed hospital would be like without this American nurse, for thanks to the Woodward Avenue Baptist Church of Detroit and their love for my immediate predecessor Doctor Harper, we are to have a new hospital built in his memory.

We tried all over Burma to secure the services of a nurse trained in a Government hospital or in the Woman's Hospital of our Baptist Mission in Moul-

mein. But, if you please, these splendid Burmese and Karen girls, after they have graduated from their Nurses Training Schools, are so conceited that they demand the enormous salary of twenty dollars or so a month. And of course that was perfectly outrageous. All I could afford to pay was two dollars a month, for our appropriations would not allow of more. We finally obtained the services of a Shan girl who had received one year's training in Rangoon. She was not much of a girl, and the Government after one year's experience had kicked her out of the hospital. But still she was more or less of a find, so we took her in, and she lasted about six weeks. The trouble was that she wanted to be the doctor as well as the nurse. If she liked my prescriptions, she gave them, and if not she gave her own medicines. If she wanted to come on duty, she did; if not, you couldn't drag her there with an ox-team.

One day I was called out to a village

about four miles away to visit a man who was very ill with malaria. I found him so frightfully ill that the whites of his eyes were deep yellow as though he had the jaundice. I knew from my previous experience with the disease that, unless we could get him to the hospital at once, in about forty-eight hours he would be dead. So we tried to get the villagers to carry him down to the hospital on a front door. But they were Kachins, and he was a Hindu, and they don't love each other any better than we Americans seem to love some of our neighbors; and they refused to be bothered. The only way to get him to the hospital was to put him up in my saddle. So his wife grabbed hold of one leg and I held onto the other for dear life and, somehow or other, we managed to keep the patient on the back of that pony until we got him down to the hospital. And of course my nurse was nowhere to be found. So I put the patient to bed myself, and, since I believed in large doses of quinine, I gave him

fifteen grains and went up to the house to change my riding clothes. A half hour later I returned to find that not only had my nurse come on duty, and, since she believed in large doses of quinine too, had given him twenty grains, but also my assistant physician had returned and given him fifteen grains more. So in a period of thirty minutes the poor fellow had received fifty grains of quinine. But he got his concentrated form of treatment all right, and he got well in "spite" of all we could do.

We decided, however, that we couldn't keep this girl in the hospital any longer, for fear we would be killing off so many patients that the Government would arrest us. So we got rid of her and decided to train our own girls to be nurses. We organized a nurses' training-school which had a most remarkable faculty. You see, I was to be superintendent. I was also head nurse, professor of Anatomy, professor of Physiology, professor of Surgery, Medicine, Obstetrics, Gynecology,

and what have you? As a matter of fact, Mussolini must have heard about me, for his Cabinet was modeled on the same principles.

We hoped to obtain two Shan girls, for then I should have been able to make myself understood by teaching in Shan; none of our people understands English. But this was of course out of the question, since the Shans are a very clean race. Our Christian Shan girls frequently bathe two and three times a day, and they were not willing to do this horribly dirty, nasty work we have to do in our mission hospitals. We did, however, find a Kachin girl. You see the Kachins are not nearly so particular about being bathed as the Shans. It is said that the Kachins in their heathen villages only bathe purposely three times in their lives, once when they are born, once when they are married, and once when they die. They can't seem to help the first and last times because, you see, some one puts that over on them; but if

they are in a hurry to be married they will omit that middle bath. Furthermore, these Kachins after they become Christians make about the finest and most practical Christians you could find. Their missionaries have taught them to practise Christianity, and those who have an education are anxious to be used in worth-while Christian work. In addition to all this, this Kachin girl had tried for two or three years to pass the eighth-grade examination but without success. She therefore, I suppose, realized that there was no future for her as a teacher because she didn't have enough brains, and that the best place for her was in the hospital where nurses don't need brains! So we took in these two girls, and since the Kachin girl couldn't understand a word of Shan, I taught the Shan girl and the Shan girl taught the Kachin girl, and away we went.

But at the end of the year our patients had increased so in number that we had to take in three more girls, and the next

year four more, until finally there were twelve girls who were studying nursing in our hospital. And the trouble was that all but two of them were Kachin and didn't understand a word of Shan. It made it rather difficult during operations. I would have to talk to Mrs. Seagrave as she gave the anæsthetics, in English. Then I talked to my head nurse in Shan. She talked to the Kachin girls in Burmese, and they talked to each other in Kachin. And we had four languages going on at once. You can imagine why some of my patients almost bled to death.

We finally decided to use the Burmese language, for all these girls understand a little Burmese just as you and I understand French—you know how much that is—and I remembered a few words from my boyhood. So away we went with Burmese. And we got along very well indeed. You can imagine how well we got along if you can think what it would be like to take an American doctor and ship him over to Germany to open a

nurses' training-school, allow him to take in only French and Italian girls, and make him teach them in the Russian language. But at the end of four years we graduated one girl. We gave them a four-years' course for two reasons. First because coming as they do from the fourth and fifth grades, they are just a little dumb about arithmetic. In the second place, we wanted them to study midwifery. When this first Kachin girl graduated with high honors (she blossomed into an unusually fine nurse), the princes of the valley of Mong Paw, fifty miles away, heard about it and sent an embassy down to say that they would like her to come out to their valley to practise, as their people were entirely without medical assistance. I promised them the girl on condition that they build her a hospital. I expected that if they built her a hospital it would be of bamboo. We were delighted, however, to see that they built her a hospital with wooden posts and a wooden floor—such as it is.

Nurse Hkang Nang has been out in that valley now for about one year. She has been entirely without medical assistance except that she was occasionally able to send to my *locum tenens* such cases as she could not diagnose and treat. But during the first six months of that year, she cared for more sick people—and cured them too—than I did in my whole first year in Burma. We feel that this nursing school is about the biggest thing we do; for every one of these girls must be a Christian, she receives a good deal of Bible instruction in either the Kachin or Shan schools, and she is able to do remarkable work in the care of the sick of her own people. It is one of the plans of our devolution of the mission work upon the natives to train these girls so they may do the bulk of the medical work among their people. As they graduate they will be given " hospitals " unless they marry. And even then the Kachins, at least, do not allow their husbands to interfere with their Christian

efforts. Mr. Sword has a Kachin woman who has brought up a large family and at the same time has taught school and raised up her husband in the way he should go. There are many of this sort.

It is very difficult, when these nurses first begin their training, to make them really believe you when you discourse learnedly on the omnipresence of the elusive bacteria. Accordingly one has to watch them with the eye of a hawk lest they do something terrible like brushing their hair out of their eyes in the middle of an operation. They are apt to hurry the scrubbing up before an operation, and they are very apt to get absent-minded during the most critical time. One of my nurses absent-mindedly twisted a clamp which was fastened to a little venule coming from the internal jugular, and tore it off, giving us a nice mess to handle. When they accidentally become unsterile during an operation, mistaken discretion tells them to cover over the fact and go on with the opera-

tion rather than admit they are unsterile and change gown and gloves. It is also almost impossible for them to work out dosages for children, for they have had little arithmetic. On the other hand, they finally pick up the most essential knowledge, and are of immense value to the hospital work. It is quite apparent with the varied type of work for which the doctor is responsible that he has no time to waste with the less important cases in the dispensary, and these nurses have given excellent service in caring for these cases. To train them, however, it is necessary to go over with them repeatedly the important points until the whole proposition becomes second nature to them.

We have a lot of difficulty selecting nurses. A great deal has to be considered besides the amount of schooling which the girl has had. I say " girl " advisedly. In most mission hospitals, at least under our General Board, male nurses are the rule. This is of course unavoidable in

certain countries because of the customs which prevail locally. Caste system, the low position of woman, and all that sort of thing have to be taken into consideration. We do not have caste in Burma, and none of the races objects to the touch of a woman nurse. Even the occasional Indian patient in our hospital allows our nurses to care for them. We anticipated trouble only from the Buddhist priests themselves, for they occasionally come to us for treatment. A Buddhist priest, especially in our part of the world, must not be contaminated by the touch or presence of a woman. If a woman is in the upper story of a house, a Buddhist priest must not enter the lower story. A Buddhist priest loves to receive gifts. If the donor of a hundred-rupee note is a woman, however, he will not take it at her hand, but sends for a novice from the monastery, who receives the gift from the woman and then hands it to his excellency.

With Christian women, however, the

ONE OF THE KACHIN NURSES

Buddhist priest is not so particular. Our Dean of Buddhist priests, a Palong abbot from the most important monastery of our valley, shakes hands with Mrs. Seagrave quite regularly, and always brings her a present when we have been away. When they come to our one-man hospital, they realize that I myself cannot give them all the attention they will need, and so they yield themselves up to the tender ministrations of the Christian lady nurses with never a word of complaint. One of my nurses committed the *faux pas* of grabbing hold of the yellow robe of an important priest one day and jerking him back precipitately when he was about to lean on our sterile instrument table in the midst of an operation. That was an awful crime, but there was no question of the lady's right to commit it, and no objection was made by the priest, in spite of the fact that he almost landed in a heap on the floor.

I have not succeeded at all in the desire to have male nurses. Most of our

educated boys refuse to study nursing as such. They would be willing to take the course, but they desire to be known as doctors when they graduate. They wish a certificate to allow them to practise as physicians and surgeons. To be allowed to be a nurse only is too menial for them. My little experience with boys in the hospital has not been happy. They are more apt to cause trouble with patients of the other sex. One boy that I was training used to secrete costly drugs and make quite a profit on the side. I discovered him giving illicit hypodermic injections of white opium—morphine—to opium-eaters who desired a new experience.

Girls on the other hand are much easier to handle. They are terrified by the basso profundo of a white man, whereas a boy cowers temporarily, and then continues to commit the same crimes. We are worried only by the continual proximity of marriage. The girls are not afraid of hard work because for gen-

erations, among the Kachins especially, they have been the workers of their race. You can lock the girls up at night, but you can't lock up a boy.

Accordingly we have thus far used girl nurses. We hope to be able to add an occasional boy to handle especially the venereal diseases.

We pick our nurses from the fifth grade up, and we will continue to raise these entrance requirements as the value of our nurses' training continues to become more apparent to the countryside. They must be Christian girls. They must be far above the average morally or they are expelled. They must be clean. They must be congenial. And above all they must be gentle.

At first we had only day nurses on duty and even then only when the work was heavy. When we insisted on at least one being on duty throughout the day no matter whether there was much work to be done or not, there was a howl. But nothing could compare with the terrible

wails that went up when we ordered them to go on night duty. They could think up as many reasons for a girl not going on night duty as my youngest boy can for not going to bed at night. Finally they went on night duty—such as it was. I went to the hospital one night to find the night-duty nurse sound asleep, and she had had the forethought to carry her bed over to the hospital! The only way we could finally impress it upon them that we meant them to stay awake was for me on wakeful nights to hustle on my clothes and pay the hospital a surprise visit. On one of these visits I couldn't find the nurse at all for about three-quarters of an hour. Finally I woke up one of the women patients to ask if she had seen her, and discovered my nurse curled up under the mosquito net with her. Now we have two on night duty, and they keep each other awake by tattle-taling.

We nearly had a strike when we introduced nurses' aprons. If only our nurses were not required to do menial duty in

our hospital, they would not need aprons. We should give them a uniform white jacket and silk skirt in the best Burmese manner. This is what they do in the Government Hospital in Rangoon. In our hospital, however, the nurses are orderlies, floor-scrubbers, and lots of other unmentionable things as well, and they must have nurses' aprons for their own good as well as for the sake of our vision. Threats finally overcame their scruples until two years later, when our next shipment of nurses' aprons arrived from America. Another strike ensued when the nurses learned that these new aprons were of an entirely different cut. Now each class of nurses wears a different style of apron! American nurses from different hospitals in the States would feel right at home in Namkham, for they would find all their old friends out there.

Coming as they do from the lower grades, and having to study medicine in foreign languages, we find it hard to

train girls until they are proficient in all things. They have natural bents, however. One of our nurses has become an excellent midwife. Another, who comes from a blue-blooded Kachin family, has blossomed forth into a wonderful surgical assistant. The sight of blood is to her like the smell of battle to an old war-horse. She is the only human being I have yet seen in North Burma who has any comprehension as to what a surgical operation is all about. She has frequently passed over the right instrument at the right time, before I myself have made up my mind what the right instrument would be.

But my biggest prize is our senior Shan girl. She is the homeliest thing in the hospital, but she is a wonder at running the men's ward. I have yet to see a male patient who dared disobey her commands. Furthermore, operations always go well when she is selected for the opening prayer before the operation begins.

We have one more problem which yet

exists, for our other difficulties have faded away with the securing of our new American Nurse-Superintendent. This problem is Governmental recognition. There is a Nurses and Midwives Council in Rangoon which is the official Government organ for the licensing of nurses and midwives for Burma proper. There is no such organization in the Shan States, as yet. For this reason we have been attempting to get recognition from the Burma Council. Until very recently the instruction of nurses and midwives by the Government was in the vernacular. About the time of the organization of our Nursing School, however, the Government required nurses to be trained in English. In the Woman's Hospital of our Board in Moulmein, instruction is given in English. There are many Anglo-vernacular schools in Burma proper from which their nurses are obtained. In our Northern Shan States, however, there is no Mission Anglo-vernacular school. None of our people knows English.

Either one goes without nurses, or one trains them in the vernacular. So of course we have not yet been able to have Government recognition. Our girls, no matter how proficient, cannot sit for an examination in nursing that is given in English. This problem still remains to be overcome during our next term of service.

It is no wonder that the Government gave up the teaching of nurses in Burmese as they had no text-books for nurses in Burmese. There is only one work in Burmese of which I am aware. Dr. Ma Saw Sa, a Christian Burmese woman doctor, a product of Judson College and the medical schools of England, has written an excellent little work on midwifery in Burmese. I learned of this book just as my hair was turning gray, and I use it not only for obstetrics, but as a source of the authoritative names for various organs in the body. Prior to that time I had asked my nurses the Burmese names of anatomical organs, and I was

horrified later to learn that without exception they were giving me the vulgar, filthy names rather than the parlor names. The poor girls had never heard these names except when they were listening in to filthy abuse from one Burman to another. Burmans, you know, do not swear in the same way as Americans do. They call each other filthy names.

Dr. Ma Saw Sa's book is the only one we have in Burmese. Some one had to write some. My own knowledge of Burmese was a cross between bazaar Burmese and a few religious terms, with real Burmese grammar left out; but it seemed to be up to me. So we sent for copies of the lengthy notes of lectures given in English by the doctors of the Ellen Mitchell Memorial Hospital in Moulmein, and we also bought a tiny little book, written by an English physician, which purported to contain all the essentials, for nurses, of all the various medical subjects, I lined these various and sundry books, together

with my own enormous works of all sorts, around me, and began dictating voluminous notes. My diction was horrible. We have had to revise and blue-pencil a lot from year to year as my knowledge of Burmese has increased, but we are at last producing a series of medical books for nurses in Burmese which are vivid even though they may never be added to the archives of Burmese literature.

VI

WASTE-BASKET SURGERY

As far as nurses are concerned, then, we have done very well indeed. But operating-rooms are still a problem. There was no room in the hospital with sufficiently big windows to admit the necessary amount of light. We couldn't turn on the electric lights because there never was any electricity. We did have gasoline lamps, but we have to pay anywhere from fifty cents to a dollar and a half for a gallon of gas, so we couldn't afford to use them during the daytime.

My predecessors got out of the difficulty in a rather ingenious manner. They went out onto the front porch, and no matter how private the nature of the operation might be, there would be a great crowd of men and women that would gather together and climb upon

the rail to look on while the doctors were operating.

They didn't seem to mind that; but somehow or other I have a very bashful, shy, retiring disposition, and I couldn't bear to operate out there with all those people looking on. So I went back into one of those little rooms and did the best I could. But I couldn't see what I was cutting, what I was sewing, or what I was tying; and so we often found minor operations were becoming major.

After three years, the inevitable happened. A man came to us to have us remove a stone about the size of a goose-egg from his bladder. Bladder stone is very common out there. He had had the stone for twelve years, and for ten had been flat on his back in bed while his poor wife took care of him in addition to tilling their rice-fields. When he had been prepared, I made my incision, and the clouds must have been unusually bad that day, for in spite of all my Johns Hopkins training, I give you my word

I couldn't find that man's bladder anywhere. I made an incision into what seemed to be his bladder, and it wasn't his bladder at all, it was his intestine, and we had quite a time sewing him up and keeping him alive. But somehow or other the Lord takes care of these men whom I try so hard to kill, and he got well.

We decided, however, that we had to have a new operating-room with large windows, and so we wrote to our Reference Committee about it. They replied that they knew we needed the operating-room, and they approved our building it provided we didn't ask any money from the Americans, who were getting poorer and poorer. And we couldn't get anything from the Government because all English money was apparently coming over to America. So we were at our wits' ends when we were told that the British Government officials had noted with great interest the improvement in the health of our boys and girls in America

because we were having medical examinations done every year. So the Government decreed that hereafter all the Anglo-vernacular school children in Burma must receive a medical examination twice a year by a competent physician. The munificent reward of sixteen cents or so for each examination looked good to me, and I knew I was a good physician, so I applied for the job, and secured about six schools with from three to five thousand children to examine. Then we found no time to examine them except to take our six-weeks' vacation and, instead of going off somewhere else, we went to Rangoon and spent three weeks there twice a year, examining school children by the yard. We got enough money in this way not only to pay a good many of the running expenses of our hospital and to build an operating-room (you can imagine what a wonderful operating-room it was, since it cost a hundred dollars) but also to buy a Ford car.

Now that Ford is the most wonderful

thing that Henry ever built. Whenever we feel that we are going insane, we go for a joy ride in it—and that is quite often. When we are called out to visit patients, instead of spending two or three days and coming back all worn out and not fit for a thing for a week, we go out and return in an hour or so, just as fresh as when we went, if not a good bit fresher. When we have to bring patients to the hospital, there is no other ambulance, so we use this Ford. And if there isn't room enough in the back seat, we tie the patient on the running-board. In the course of six years, there have of course been a few patients who positively persist in dying in spite of all our exhortations to the contrary. And if they insist upon dying, we use the Ford for a hearse. And there have been two babies who have been born in that car. Now if you can tell a bigger Ford story than that one, it is your turn. The nicest thing about that Ford, however, is that, when it gets mired in about two feet of mud,

Mrs. Seagrave can get under the back axle with a young sapling and heave me out while I see-saw the engine. No matter where you want to go, you can get that Ford there—even if you have to carry it.

Even yet, however, we have not been able to secure all the necessary instruments for the carrying on of surgical practise in an up-to-date manner. At home a "general surgeon" would not think of removing cataracts, nor would an ophthalmologist delight in doing orthopedic operations. In our mission hospitals, however, one cannot send patients away, no matter what type of operation they need. There is no other doctor to whom they may be sent. To send away a cataract patient is to condemn him to blindness for the rest of his life, whereas with a Græfe knife and a lot of nerve, one will be able to restore to him a very large amount of vision. You dislike also sending away a clubfoot patient when with rusty and fragile Gigli saws you

GOITERS À LA KACHIN

may possibly be able to change him from a cripple into quite a manlike being. So in our Oriental hospitals the doctors need to have on hand a large variety of instruments.

And we did have three cases full of instruments which made it possible for us to do two hundred or more "major" operations a year. And what instruments they were! I secured them in a rather interesting manner. I was interning in the Union Memorial Hospital in Baltimore when one day I noticed the head nurse of the operating-room about to throw away a lot of surgical instruments—a whole waste-basket full.

They were instruments which had been used for years in the operating-rooms, wards, and dispensary and were about to be discarded as perfectly worthless. They were rusty and broken, and they weren't mates. I begged them to give me those instruments and, though they thought I was foolish, they let me have them; and they have constituted two-thirds of the

surgical instruments that I have been able to use out there during this first term of service. Among those instruments was a tracheal tube. I thought it would be ridiculous to take it out, as I couldn't imagine that we would ever see a case in which we would need to use such an instrument. But since I was being a fool anyway, I thought I might as well be a big fool, so I took it along. One day they carried into the hospital a young girl the lumen of whose trachea was almost completely obliterated by pressure from a small tumor. We did most of the operation under novocaine, but needed a few drops of chloroform as we were getting down to bed-rock. The minute the chloroform hit the mask, the patient stopped breathing, and because of the compression on the trachea, artificial respiration accomplished nothing. We did a tracheotomy, inserted this old tracheal tube, and the young lady is still alive. And we were using instruments which an American doctor wouldn't think

of using and which we Americans would probably not allow him to use if he were operating upon us; but it seems to be all right with us when our missionaries have to use that sort of instrument in operating on the natives of other countries!

The greatest disaster of my experience, however, occurred because of the lack of sanitary facilities. Our hospital was without bathrooms entirely, or any other means for effective latrine service. We do not in our State have the "sweeper" caste of Indian. We realized the need of efficient bathrooms of course. Who wouldn't, since the native ideas on the subject are quite fully comprehensible to those who have read *Mother India?* But we simply had no funds with which to experiment. When a hospital hasn't even the funds for buying its medicines, it cannot invest in modern sanitary arrangements. We noticed year after year that many of our patients were coming with minor ailments and were acquiring amœbic dysentery while in the hospital.

One day a little Palong girl led her blind father down fifteen miles of mountain paths to have his eyes operated on in our hospital. The girl had apparently not been sick a day in her life, and as a matter of fact had hardly ever been away from their little mountain village. We were able to restore the sight of one of her father's eyes, but as she waited on him the little girl acquired a most malignant form of dysentery, and in three days, in spite of all our treatment, she was dead. It is hard for medical missionaries to assume the burden of responsibility in matters of this sort when the fault is in the inability financially to build what they know to be absolutely necessary for the welfare of the patients. In my own experience, aside from help from Government, the improvements on the building have mostly been made with funds obtained in our six weeks of school examinations every year. It is possible for a medical missionary to earn in six weeks of this type of poorly paid medical work about a half or two-

thirds of his yearly salary as a missionary.

Some friends gave us an autoclave vegetable cooker for use as a sterilizer when we went out to Burma, and I really do not know what we should have done without it. As our operative work increased it came to be in almost continual use, sometimes during the night as well as the day. It wasn't built for it, however, and eventually one of the steam escape-valves began to leak in spite of all I could do. The pressure simply would not go above a pound and a half, and we began to have infections in perfectly sterile cases because our towels, operative sheets, and sponges were not being properly sterilized. Finally the inevitable again happened, and I went down to the hospital one day to find five goiter patients waiting for me to have their goiters removed. One of the goiters was so large that the man seemed to have a wry neck. We began operating on them, and did the men first. By the time the two women were sent for

we found that they had run away. I have never ceased to be grateful that they did run away. The men all became very badly infected: they very nearly died, and were in the hospital about three times as long as the ordinary case. When they did go home they had great ugly scars instead of the fine hair-line scars we usually obtain. The day we saw the temperatures of these patients shooting up, I went up to Mrs. Seagrave in great distress, and begged her to allow me to order a six-hundred-dollar sterilizer and pay for it out of our own salaries if the cost were not forthcoming from America or from the Government. She told me to go ahead, so we ordered a sterilizer from the Kny-Scheerer Corporation of New York City. The day that our order blank reached the New York firm, we received a letter out there in Burma from a lady in Buffalo, N. Y. She said that a group of women in Buffalo churches had heard that our hospital was without a modern sterilizer. She regretted that they could not afford to give

us one of the complete sterilizers with sterile water attachments, and with utensil and instrument sterilizers, but if I didn't mind receiving a sterilizer which cost less than six hundred dollars they would be glad to furnish it. Well, I didn't mind! Talk about answers to prayer and faith missions!

VII

THE WHITE CROSS

The women of our Baptist churches have organized what is known as the White Cross Society. At regular meetings bandages are rolled either from new muslin or old sheets; compresses of great variety are prepared from gauze; and the wealthier churches often insert surgeons' and nurses' gowns, hot-water bags, sheets, towels, and a great number of other valuable hospital articles. I do not know why four years went by before I realized that the women of our churches are only too anxious to send whatever the medical missionaries need. I spent those four years ruining our small stock of materials. I tried to buy gauze in Rangoon. There were two kinds of gauze in Rangoon available. One was the kind my pocketbook would fit, but which I could

not possibly use surgically. Then there was the kind my mouth watered over, but which my pocketbook wouldn't fit. So we went without. During operations we used instead of gauze sponges an invention of our own. We took little two-and-a-half inch squares of gauze relics one layer thick. We bought cotton in the bazaar just as it comes from the pod, seeds and all. Of course it was non-absorbent. You couldn't soak up water with it, let alone blood. But we took the cotton and stuffed it into the little squares of gauze, pulled back the four corners of gauze, and tied them around the cotton to make a little ball. These sponges soaked up some of the blood during operations, and the rest landed on the floor. It was four and a half years before a shipment of White Cross supplies reached us from the Washington Heights Baptist Church of New York City that was so large that we began to use real gauze sponges during operations. Actually! But of course they were washed and reused and re-

washed until they collapsed like the wonderful " one-hoss shay."

We love the bandages which the White Cross members roll from old sheets. But as with all medical missionaries, these are used over and over again until they rot, or until they become so vilely stained with various secretions that the doctors and nurses go on strike and refuse to handle them, even after boiling. After being discarded, however, one frequently sees patients gathering them up for future reference at home. There are no " rags " in the Shan States from which to roll bandages. What clothing the people possess remains on their persons until it is no longer extant.

And yet some medical missionaries do not like to receive shipments of White Cross materials. Why not? I have heard two reasons given. Occasionally a nurse or doctor does not care to receive these supplies because they are not identical with those they have been in the habit of using, and it is hard for them

to break old friendships. The most commonly given reason, however, is that transport costs are too high. Missionary appropriations are so small that the missionaries cannot even afford to pay the transport from the port city to their station, let alone from America to the port city. This is really a very important item. Muslin bandages are heavy, and it costs a great deal to get them up to your station. Even though one must have the goods in order to practise successfully, one has to go without because there is no money for mule transport. As far as the first objection is concerned, I am not impressed at all. I do not care how large the compresses are so long as they are made of gauze. We use a baker's dozen different varieties of compresses, and bandages and materials of all sorts. Almost every nurse in our hospital will soon have her own style of apron, unlike those of all the others. I have only two suggestions to make: When strips of cloth are rolled into bandages, the tails of

each strip ought to be sewed on to the next or the bandage is perfectly useless. And the gauze compresses which are used in abdominal operations and to which tape is sewn in one corner, should be much larger than those prescribed in the White Cross manual. The small ones are worthless.

As to cost of transport I see no solution unless in the churches there should arise an occasional good soul who would volunteer to pay the cost of shipping all the way from the church to the station—even though the station be on the frontier. Certainly the work of our hospital would not be possible without extremely large gifts of surgical materials from the White Cross bodies. But one's ingenuity is greatly strained to decide how to get the goods to the Chinese border even after they reach Rangoon.

Many of our church friends suggest that it would be better to send the money and let us buy our own supplies. There are several objections to this. In many churches, the ladies at their regular meet-

ings enjoy having something at which to work, and a great amount of very valuable material can be produced cheaply at one of their meetings. In the second place, in hospitals like my own, the nursing staff is so small that there would never be time for them to spend properly preparing bandages and dressings. But the biggest reason of all is this: There are a great many people who will give White Cross goods, but very few of these would be able to increase their regular budgets and give additional money for the purchase of supplies on the field. They are already giving to their limit.

People who are interested in the preparation of White Cross materials are doing a very real service for the mission hospitals which are placed as mine is. There was a dear old lady in Michigan who died recently. For many years before her death she spent a large share of her time carefully preparing strips of old muslin, sewing them together and rolling them very carefully into bandages. The

story of her work had a real influence upon our Shans. Her bandages were always sent to us, for she had known Doctor Harper well, and her bandages were by far the best prepared that I have had.

VIII

SCIENTIFIC MEDICATION

THE traveling dispensary is a great institution in Burma. It is very similar to the work of the colporter. In the less-civilized sections it is a regular system employed by the Government. During the six summer months when we have our rains, none of this type of work is possible, and the entire Government staff of physicians is employed in the base hospital. During the six dry months of the year these doctors are sent out on regular schedules and regular routes. A week or so is spent in each large mayoralty. The sick are given medicines for their immediate needs. If they do not happen to be sick at the moment, they are out of luck, unless they are able to recite glibly and accurately a nice symptom complex.

I have done this type of work myself

and I do not think much of it as a way to practise medicine. The epidemic diseases do not occur in the cold weather, and the only diseases which the winter traveling dispensary finds to treat are the chronics. Chronics can't be cured with one treatment. At the time when the people most need treatment, none is available. Medicine cannot be sold on these trips, as one meets new people who are not convinced of the value of the medicine you are trying to sell. Surgery is not possible as there is no provision for post-operative care.

But as a means of advertising, the traveling dispensary beats the billboard to a finish. One does it very much like the peanut-seller on an American day-coach who gives each passenger three peanuts—just enough to whet his appetite. We see hundreds of patients on these trips, and those who have diseases really worth treating follow us back to Namkham. Unless one does this type of work, the natives have no idea which dis-

eases can be cured, and which are incurable.

With the increase in our medical work our medical troubles began. The patients wanted us to treat them without examination. Their own native quacks do not examine, for they have no idea of normal anatomy, let alone pathology. And they had no conception of the necessity for an accurate examination and diagnosis before treatment could be sensibly outlined. They felt that we ought to have a clairvoyant knowledge of what was wrong from the minute they entered the hospital, if not before. And in some cases, of course, this is quite possible, for we almost always can diagnose a certain type of disease from the sheepish grin with which a patient arrives.

So the inauguration of the physical examination started a big fuss. It was the men with whom we had our first troubles. Many people think it is only the women who object to the physical examination, but this is not the case. When we first

began the work among the school children of coeducational schools, some of our missionaries were terribly disturbed because a few of the girls always ran away from school when they were up for examination. They failed even to notice the almost equal number of boys who were also A. W. O. L.

After a few struggles with men patients who objected to examination, I finally prohibited the treatment of any male who objected to a complete examination. The number of patients decreased for a time until the whole countryside began to notice the improvement in the results obtained when we were allowed to diagnose cases before treatment. Then they all came back, and we ordered that the rule be extended to include women. Now the people are completely converted. They think the stethoscope is a variety of heaven-sent x-ray. They are not satisfied with the use of the stethoscope on the chest. They begin to get well from gastric ulcers and gan-

grenous feet the minute you apply the stethoscope to the offending neighborhood.

The trouble does not seem to be entirely shame. They have two words with which one can translate the word "shame" into Shan. One means very much the same as our "shame." They are ashamed from a subjective point of view. Ashamed for their own sakes. This is not the word, however, that the Shans use when they say they are too ashamed to allow us to examine them. They use another word which signifies that they are ashamed for the doctor's sake. It embarrasses them to be examined because they are afraid lest the doctor be soiling himself in examining them. It takes a good bit of education to persuade them that the doctor considers it a privilege to be able to treat them and cure them.

I doubt if we ever get over the difficulty of history-taking. In America the anamnesis is one of the most important steps in history-taking. In Burma the

anamnesis is almost all amnesis. They seem to forget everything that ever happened. A patient comes in and says he wants some medicine. You ask him what's the matter, and he replies: "O teacher! You are a doctor of devils and of men. You must know what's wrong with me. How can I know?" And that is about as much as you can get—not even so much as a clear-cut complaint. You have to work with them hours before you can even get started.

They usually call upon some other member of the family to answer my questions. And these assistants are so anxious to please that they answer "yes" to every question. And some of the fabrications are most fearful and wonderful to listen to. Their inventions would put Edison to shame. Worst of all is the difficulty of language. We have overcome this somewhat by our selection of nurses. One of my nurses spoke three kinds of Kachin as well as Burmese and a little Shan. And yet there was a couple

of other kinds of Kachins whom even she could not reach. One of the other nurses speaks Chinese, but a great many of our farther Chinese cannot understand her. A maid understood Hindustani, which helped a lot. I can still remember a few words of English, which helps out sometimes, but we have no one who can talk Palong except one schoolboy. Palong is a language which even the natives of other tribes cannot seem to learn. No matter how many interpreters there are, however, one needs to have a small repertoire of one's own, and I can at last, after five years' hard work, ask a man if he has a tummy-ache in about six of their languages, without making more than ten mistakes. It is of great assistance to the morale of the patient that we do make mistakes. A white man is always the proverbial Englishman when it comes to understanding the humor of the Orient. But there is one meeting-ground in point of humor—wisecracks derived from wilful mispronunciation of their language.

So, by thus improving their morale, one converts defeat in the obtaining of histories into victory in the treatment of the patients.

Diagnosis is further rendered almost impossible by the lack of diagnostic instruments. When one purchases instruments, he buys first the instruments of therapeutic value, rather than those of diagnostic value; as of course therapy is more important to the patient than diagnosis. He doesn't care what disease he has so long as he is rid of it as soon as possible. One of our medical missionaries was studying in a postgraduate medical school when a professor asked her what type of x-ray machine she had in her hospital. She replied that of course they had not yet obtained an x-ray machine. "Then," said he, "you don't do good work." True. But the medical missionaries do not fail to do good work from choice.

Hypodermic therapy in a new field is initiated with difficulty. On my very

first trip I entered a native home to find a girl of sixteen jaundiced by malaria. She was not very far from death then, so I told the family that the remedy should be given by needle. No objection was made, so one dose was given in that way, and the patient died. I understand that they still blame me for the death of that girl. It reminds me of the doctor who, on a trip through the mountains of Kentucky, was forced to operate upon a lady with appendicitis while her three brothers stood in the doorway with leveled guns. In opening up new work one has to be very careful for fear the suspicions of the natives may be aroused and the work permanently handicapped.

In the vicinity of Namkham Doctor Harper and my other predecessors have used hypodermic medication for such a long time that it is now firmly established as a therapeutic measure. The people feel that it is a much more powerful method than oral administration, and they insist upon receiving a hypodermic

even when there is nothing wrong. A hypodermic of water is very efficacious.

One difficulty which until the present time has not been overcome has consisted in finding a room where a patient may die comfortably in privacy. Now our patients die in the presence of the entire ward and it embarrasses some of them tremendously. For the first three or four years, whenever this occurred all the remaining patients immediately rolled up their beds and departed for home, the sickest ones being carried out by their terrified friends. About two weeks later, when the scare had subsided, the patients would dribble back one by one.

It is the chief ambition of our people to be buried in a coffin. Those who have a little money buy their coffins far in advance of the expected demise so as to be sure to have one ready. It is so much more dignified to be buried in a wooden coffin than merely to be rolled up in a mat.

In the dispensary we are puzzled how

to give a patient an amount of medicine for home consumption sufficient to cure him and still avoid giving him so large a quantity that he would be able to kill himself.

On one of our evangelistic trips a Shan came to me with a stomach condition which I felt might be improved by the administration of belladonna. I had none of this drug with me, but I did have some tablets of atropin, which is the active principle of belladonna. So I gave the patient four tablets of atropin, one of which was to be taken twice a day, the patient to report to me the next evening.

He did report. He was frightfully disgusted. He had looked at those tiny tablets and wondered what kind of a fool doctor I was to tell him to take one of those worthless things at a time. So he took them all at once, and of course his saliva and his tears and everything else had dried up. What angered him so was the fact that he couldn't even chew betel-nut, and that is a terrible deprivation.

A gentleman with specific disease came to the hospital one day for some medicine to take at home. He insisted that he could not remain in the hospital, so we gave him sufficient potassium iodide to last him for two or three weeks. He finally decided to sleep in the hospital for one night. It is well for him that he did, because he was so anxious to get well that he took all the medicine at once. The result was the exact opposite of what happened to the other gentleman. In this case the saliva began to flow most profusely until the patient was scared out of a year's growth. We were delighted, because it gave us a wonderful opportunity to send for all the classes of school children which we teach in first aid, and give them a practical demonstration in the art of stomach-washing!

The transporting of patients to the hospital involves a great many difficulties. It is on account of transport that our surgery is done almost entirely in the cold weather. During this time the roads

TWO CONVALESCING GOITER PATIENTS

are passable, and the people carry in their relatives from great distances. Usually a front door is torn from one of their homes, a long bamboo pole is fastened down each side, the patient is placed upon it, and four carriers walk off with him. Often they use sedan-chairs. If nothing else is available, a little swing seat is hung from the two carrying-poles. It is wonderful how our people can retain their sitting position in one of these swings over a long trip almost to the hour of death. Their grit is admirable as long as they still retain hope of relief.

About four men are carried to the hospital to one woman. The women frequently have to crawl to the hospital for treatment or die at home. During the rainy season it is practically impossible to carry patients to the hospital, for the mud is too deep. Only very acute cases are therefore able to persuade people to carry them. The epidemics, however, occur at that time—malaria, dysentery,

beriberi; and our hospital is full of that sort of cases. But we derive our patients only from the immediate neighborhood. What happens to those who live farther than five miles away? What could happen to them? Not one grain of emetine is or could be sold in the bazaars, for it is a drug which must be given by hypodermic needle. Quinine tablets of five grains each cost one-quarter of a native day's salary for one tablet. Do you suppose any case of malaria aside from the home of the occasional fairly wealthy merchant ever gets enough quinine to do him any good?

There was a Kachin lady who lived on the tops of the mountains behind us. She had been ill for a good many months. She was pretty weak and on the verge of collapse when she finally gave up as hopeless the idea of trying to persuade any one in the village to carry her to the hospital. But to the hospital she was determined to come. So she walked and crawled and tumbled down the hill until

she reached the gate of the hospital compound. There was a little stile there which she was too weak to negotiate successfully, so she rolled down the hither side of it receiving a wound, somehow or other, which took us longer to cure than her original complaint.

I remember one day seeing a Chinese gentleman crawling along the road from Namkham city. I didn't interfere with him at the time, fearing he was not anxious to have my services. Three days later he collapsed in the village at the foot of our little hill. I learned later that he had tried to find some one to carry him to the hospital for treatment. But after a long search he had given up in despair and had tried to make the trip himself. You can imagine how sick he must have been because it took him three days to crawl three-quarters of a mile. The rest of the time he had spent in the ditch waiting for strength to go on. If his inferiority complex had not been so great, he could have told any Christian

who passed through the city that he desired treatment at the hospital, and we should have gladly called for him. But so many of them are too shy to do that.

IX

INDOOR SPORT

I HAVE already mentioned the fact that we depend upon the wild animals of our jungle to furnish us with accident cases. We depend upon them for other sport besides accident surgery. And they act mighty nice about it as a rule.

Wild geese and duck come to us every cold season. Two Government officials paid our valley a visit once for the goose-shooting. They paddled down the river in a dug-out canoe; happening near a sand-bank on which the geese were resting, each man fired off both barrels and they got a bag of twenty-eight geese. As far as I personally am concerned, it is always a proverbial "wild goose chase." Nothing I have ever done, however, compares with the experiences of a certain gentleman who came to Namkham for

wild duck. He spent several days out by himself without getting a thing before he came to me for help. He told me quite a yarn.

The day before, he said, he had actually come within shooting distance of a wild duck. So he had taken careful aim with his .22 caliber rifle and fired. The bullet, he said, had just missed the duck, passing to the right a little. So he had fired again, and this time the shot had gone to the left. He had kept on firing shot after shot without success, while the duck remained in the same place, not moving except to raise first his left and then his right leg for a moment, before lowering it again. After firing twenty-four times the duck had decided to move along.

I began to suspect that there was something wrong, and inquired as to the color of the duck. It seemed that the duck was black, which did not agree with my meager experience. So the next day we went out together, as we had to provide something

for our Thanksgiving dinner anyway. On our trip he pointed out a "duck" just like the one that had submitted to the fusillade the day before. It wasn't a duck at all. It was a cormorant, a bird that tastes worse than rotten fish so that even the Karens can't stand eating them —and the Karens will eat monkey, snakes, and crows.

But I can tell a bigger one than that. A whole group of young English engineers came up for a Christmas vacation from the mines at Namtu fifty miles away—the second largest silver-mine in the world. They wanted some wild-fowl shooting, so I told them of a corner of the valley where wild fowl were plentiful, and they obtained a guide from the Lord Mayor and set forth. That evening a most delighted group of young men returned and came to the hospital to thank me for the tip. They were so delighted that they brought us three fowl for a present. It seems that they had not even reached the place I had indicated, when

they saw a whole flock of wild fowl approaching them. They " walked right up to be shot," as they put it, and they had had no difficulty at all in bagging a dozen. No wonder; they were tame fowl!

We go out for duck about once a year, and about once a year we go out after deer. I have spent one night in a tree beside a kill waiting for a leopard, but the leopard must have been informed as to my prowess, because he didn't return. The only leopard I ever shot was shot only a furlong from our house.

A little boy in the village at the foot of the hill was ordered to go after some firewood just before dusk. He went out to the woodshed, but before picking up the wood, he happened to look upward to the top of the pile, and there was a leopard. So the whole village came running after me to see what I could do.

There are not many tigers immediately around us but there are lots of leopards. A lovely little colt that I owned was killed by one right beside our school build-

ing in Namkham city, and my teacher, who actually saw the animal, was unable to shoot because the Lord Mayor's palace was immediately beyond the leopard and he was afraid of peppering His Highness. We had a lovely family of white cats. Leopards got them all but one as their visibility was so good. A whole family of dogs was taken one by one from the front veranda of our hospital, and when the old mother dog herself was taken, my night-duty nurse happened to be right beyond with only a thin partition between her and the scene of action.

It is occurrences like these which give us our thrills. We also get a few thrills from the few but deadly snakes which we have. Once in broad daylight I disturbed the slumbers of a big cobra, and when I was coming back from the hospital one dark night with a worn-out flashlight for a companion, I nearly trod on a karait. The karait was kind enough to stick around while we sent for a stick.

But visiting patients in their homes

gives us our greatest diversion. There are so many ways that you can visit a patient in his home—as far as getting there is concerned. You see there are two kinds of roads in the Shan States that one may follow: Shan roads and Kachin roads. You would never mistake one for the other. The Shan is a plainsman. He hates the sight of a hill. So a Shan road winds around here and there, makes a lot of horseshoe curves, and, rather undecidedly, at last reaches its destination. But the Shan roads are good roads for the most part. The Shan ponies are so plump from overfeeding and lack of exercise that they have to be.

But Kachin roads! Pick out the highest mountain peak, make a bee-line for it, no matter how many tremendous rocks you have to scramble over in order to get there. When you are on the top, take a bird's-eye view and find the deepest pit of a valley and tumble, slip, slide, and sprawl down there. Repeat the performance *ad nauseam,* mark the trail rather

poorly, and you have a Kachin road. You see the Kachins can't live without mountains—the more the merrier. They have lived in the mountains for so many centuries that the Lord took pity on them, and the later models of Kachins are underslung like a high-priced automobile—they hug close to the ground. Their bodies are short and very heavy. They carry their loads on their backs, the weight depending from a strap around the forehead. Their arms are free to swing and help them climb. They go up the side of a precipice as easily as you or I would walk on a railway track. They believe that good roads are an abomination, and, in the old days, they certainly must have made it a difficult job for a Shan to get anywhere near them. The Shans carry their loads on yokes across their soulders. They have to go up a Kachin road erect—which cannot be done.

Therefore before we got the car, we always went to visit patients either on

foot or on ponyback, and even now, when we visit Kachin patients, we have to use ponies.

I said ponies advisedly.

I told my cook one day I wanted to buy a pony, and he had one sent up for inspection. When I mounted, I fell over the other side. He was the smallest thing I ever want to abuse with my weight. He was a little narrow-chested monster. We bought him for Mrs. Seagrave. We put a saddle on him, and went off on a trip to civilization with our children, one on my saddle with me, and the other with Mrs. Seagrave on our new pony. Before we began the trip, we named the pony *Duwa,* which means " chief "—chief nuisance. As soon as we got to the top of the mountain and started going down toward the river, the saddle began to slip forward—Duwa didn't own any shoulders—and pretty soon Marion and the child and the saddle were doing circus tricks on the Duwa's neck. The Duwa's neck is every one's favorite place to ride.

A lady missionary came to visit us once. She was crazy to ride horseback, so we mounted her on the Duwa, and then the rest of us started on. The Duwa, however, decided that since the lady was a stranger in Namkham, she ought to be taken on a sight-seeing trip. So, instead of following out of the front gate, he took the unwilling lady all over the rear of the compound, showing her all our ash-heaps, dumping-grounds, the back-fence holes, and all the other eyesores which prove that a medical missionary has family skeletons. When the rubber-neck excursion was over, he consented to leave by the front gate.

He had a mouth like rubber. A curb bit didn't bother him at all. He would allow you to pull his head around until it was touching the saddle, but he would continue to gallop at full speed in any direction. Once on a little excursion of ours he galloped in this remarkable fashion while I was riding him, and for a distance of a hundred yards he kept my

left knee within an inch of the barbs on our barb-wire fence.

These are the sort of ponies we use on our medical trips, and of course they cannot do a full day's work. If your pony carries you all the way for fifteen miles at a walk, he has to be put to bed and given a dose of aromatic spirits. I have at last secured a pony who can trot fifteen miles with me on his back, and walk another fifteen led, provided I lead him up and down all the steepest places and ride him only on the level.

Some people claim they get much better results with their ponies. But if they do, they must have a better vocabulary than mine. They must have a vocabulary more like that of my son Gordon. He had a useless little mare—some patient had given it to me as a fee. He was riding along on it one day when he was accompanying us on one of our long trips. We came to a Kachin section of road—the kind that makes you wish horses' hoofs were like lizard feet. Marion and I and every one

else had to dismount and lead the ponies up, but every time Gordon's mare would threaten to quit he yelled, *Ee manee Quaibee, Ee manee Quaibee,* at the mare, and away she would go like all possessed.

None of us supposed that the words meant anything. We thought Gordon had manufactured the words himself. But we noticed that every time he said the words the natives who were following us would double up with laughter. I began to suspect something, so I asked one after the other what the meaning of the words was. Not one would reply until I finally ordered our cook to tell me, and he answered that it was the filthiest collection of words he had ever heard, and he didn't have nerve enough to translate it. The boy must have picked them up from some Chinese muleteer. I don't know where he got them, but the mare certainly understood.

The ponies are not much fun for long distance traveling, but they are certainly the finest source of recreation that we

have. Of course we don't have a radio yet, nor has any visiting doctor ever given us a prescription for "golluf." The natives have never learned how to play anything. They don't know what play is. They can't even understand picnics. We tried them and the natives would crowd around and gasp and remark about these strange foreigners who would take their food and leave their home and go to the woods just to cook and eat their supper.

So horseback riding is our favorite event.

It was.

Now owning, riding, and repairing our Ford is our greatest pastime.

At the recent great Empire Exposition just outside London, I am told they had a demonstration of the Ford. There was a great platform with a Ford in the center of it. At one corner of the platform there was a little victrola which repeated all day long just one sentence, "It'll get you there, it'll get you there." At the

other end of the platform was another little victrola which just as persistently repeated, "It'll get you back, it'll get you back." Mrs. Seagrave says that is all wrong. They should have said: "You can get it there, you can get it there. You can get it back, you can get it back." You can. You can disembowel a Ford car in the middle of No Man's Land, while the peacocks look on, the monkeys scold, and the leopards roar their approval. And then you can put it back together, have a few bolts left over, and yet the Ford will run on home with its brakes on. I know. I've done it.

I will have to admit that once in a while its batteries will wear out and the headlamps go out on you, so that you may suddenly wake up to find yourself in the middle of a river with the water almost to the level of the carbureter; but even then you only need to whisper to it, and it will back out.

It is the only car which can get over the bridges of the Namkham-Lashio road

when they are not yet completed. Other cars would break through, because our bridges are made of bamboo—and often rotten bamboo. A few long bamboos laid across the stream and a bamboo mat on top, and our Ford will negotiate it without too much difficulty. A nurse and yourself can build a bridge for a Ford in three or four hours, but it would take you years to build one for a Cadillac.

I know whereof I speak, for one day the whole family climbed into the Ford and went to visit one of our schools. We went over a lovely twenty-foot long and twenty-foot-off-the-water bridge. On our way home Mr. Ford didn't like the looks of that bridge so we stopped before we quite drove onto it. Thirty seconds later the entire bridge dropped into the river.

As far as I know, a Ford touring car, old model, is about the best shikari made. I have almost run over deer in the middle of the road with it—which confounds all those malicious reports that the Ford is a noisy car. I have shot deer from the

top of it without falling through its roof. And one night that Ford and a leopard had a race, and the Ford nearly won.

I had been out on an obstetrics case with two of my nurses. On our way returning home again, we had to go down a long stretch where the road proceeded down the middle of a "camel's back." There was a precipice on either side. Just as we entered on the camel's back a leopard jumped up onto the road ahead of us. We must have scared him half to death. He beat it down the middle of that road as fast as he could go with the iron monster roaring after him. The nurses and I were having the thrill of a lifetime. I began to speed up, and we gained on Mr. Leopard until he was almost under the car. Then I began to worry for fear our spotted friend would get under one wheel and tip us over the precipice. So I slowed, and the leopard gained. Then I worried for fear the leopard would get far enough ahead to allow him to turn on us, so we sped up

again, and so on till the road broadened, and the leopard sprang off.

You don't need to believe that one, even though I do have witnesses.

The Ford is our greatest single blessing. Of course most of our obstetrical cases, mother and child, would die if it were not for the Ford. But the Ford is my Assistant Missionary in Charge of Schools. It is my Chief Evangelist, my Medical Colleague, and everything else as well. If the Northern Baptist churches cannot increase the number of their missionaries absolutely, they could multiply them with cars. Too many missionaries are spending their valuable college-trained time walking the roads and riding bum ponies.

The trouble with a Ford is its appetite. It eats too much. True, you can feed him on a diet of half kerosene and half gasoline or what have you, but he must have a gallon of grub for every twenty miles you demand of him. We buy gas—pardon me, I should have said

petrol—either at the river or at the railway. If mules carry it up from the river it eventually costs anywhere up to a dollar and a half a gallon. If we get a load of gasoline tins at the railway on one of our excursions and lug it in ourselves, we get it as cheap as fifty cents a gallon.

I remember once trying to drive home with sixty gallons spread all over the running-board and the back seats. Henry went on strike right in the middle of our steepest hill. Nothing would persuade the engine to start. I was all alone. The road was about four feet wider than the car, with a steep precipice on either side. I had to turn that car by hand and point its nose down-hill so it could start by coasting three different times before we got to the top, and even at that, the last six feet from the top I had to get out behind and shove Henry forward an inch at a time. You couldn't do any of those things with any other car.

The chief difficulty with the use of the car is the absence of good roads. All

through the Shan States the Government is rapidly putting through new roads. States positively inaccessible before are being opened up, and a marked economical development is already taking place. We have so far only one road. It leads from Namkham on the Chinese border south for a hundred and thirty miles to Lashio, the capital of the Northern Shan States and the end of the railway. It therefore runs right through the geographical center of our field. From Lashio it branches west to Maymyo, the summer captial of Burma, and Mandalay. The southern branch runs to Taunggyi, the capital of the Southern Chan States, and Thazi on the main-line of the railway. From this point the road to Rangoon is not yet completed. The drive from Thazi or Mandalay to Namkham by either route is one of the most interesting trips one can make in any country. Scenically it is very beautiful. Any one who cares for human beings is astounded at the rapid changes from one race to

another. The people occur in strata. One race after another, you pass through them. Each race has its own mountain level that it delights in. Each has its own style of house, all the same for the people of that race, though different from those of other races. Each race has its own style of clothing.

A brief word will illustrate what I mean. In the nicest plains one finds the Shans. The women wear jackets like the Burmese except that they invariably button down the middle instead of down one side. Their skirts are like the Burmese except again that they fasten the knot in the middle frequently whereas the Burmese always fasten them to one side in an extremely neat manner. But in the Namkham valley the jackets are frequently of black, and the skirts always are. Where the Shans try to imitate the Burmese by wearing colored skirts, they make a mess of it, because they haven't the Burmese woman's taste for exquisite shades of color. The Shan men wear

great baggy trousers. Burmese men wear skirts.

Above the Shans, one finds Palongs high up in the hills. It takes an expert to tell the difference between a Palong gentleman and a Shan by his clothes. But the women are strikingly different. Palong ladies' skirts are predominatingly blue, with a white or red pattern woven in, depending upon the tribe. But the fashion of wearing the skirt tells the beaux whether or not the lady is married. If the skirt is fastened around the waist, while above the lady wears a very short jacket which meets in front, she is unmarried. If, however, the skirt is fastened up under the armpits while the jacket is not fastened together in front, the lady is married.

Beyond a Palong stratum, one finds a stratum of Kachins. Here again the most distinctive uniform is worn by the woman. The skirt is a divided affair. It is just about the size of a Turkish bath-towel. It is always of red and black.

The jacket indicates nothing as to the lady's married state. But if her hair has been bobbed by dint of sliding a board up between her hair and her face and chopping off the hair with a broadsword, the lady has not yet acquired a permanent husband. If the hair is long, she is already provided, thank you.

And so the road to Namkham is the most interesting in the world as one passes by these fifteen or so different races. But the nature of our Namkham section, out of Lashio, can be best understood when I admit that it costs us two front springs and one rear every year.

A new road is being built from Namkham to Bhamo at the great Irrawaddi River. This should be completed next year. It will open up a great section of country which we now reach only very imperfectly. It is a section of great forests with Kachin villages tucked away in every corner.

We cannot reach all our villages by car, so we drive out as far as we can and

finish the rest of the trip on foot through the jungle. If we are gone several nights we pay a villager to sleep in it, not because we are afraid of some one stealing the car as a whole, but because the souvenir collectors like to carry it off piecemeal.

Along the main highways the Government provides very comfortable bungalows which cost 25 cents for the night. Where we don't find bungalows, we sleep in anything from a lovely Shan Mayor's home to a hovel filled with gnats and with a buffalo-wallow on the ground floor. And we have slept in an unfinished, roofless hut in the rain. We never carry camp-cots, and I prefer eating the native food provided they furnish lots of chilis to ward off the tummy-ache.

X

BABIES

We were very anxious to start a baby clinic. A baby a year is born to any normal Shan mother, and they die just as regularly as they are born. The children simply find it impossible to live. I remember well the first time this fact was impressed on my mind. The month after we arrived in the Shan States a child was born to the wife of one of our Shan evangelists. I was, in the first place, astounded that one of our mission evangelists should have a child, and the mission doctor (Doctor Harper was still there) not be notified. A month later I was invited to the child's funeral. I went. The father and mother were both present, nonchalantly chatting with the pastor who, I remember, told one or two jokes. A year later the lady had another infant which soon followed in the footsteps of

its predecessor. This time we didn't go to the funeral, for while I do not shed tears at most funerals, neither do I laugh.

I had found out, by this time, something of the customs in infant diet which the Shans follow, and I began a series of talks in and out of season showing the people in as friendly a way as possible the habits which were causing the death of their children. Still nothing took effect, and the third child was born and promptly died. I should like to make clear that there was no hereditary background for those deaths. They were entirely due to gastro-intestinal upset following dietary indiscretion. This third death put me up in arms. This woman had three living children from eighteen years of age down. No one knows how many she had had, but during my first three years she had had three and these had peaceably died, the doctor being called in in no case until an hour or so before death.

Another lady's history influenced me greatly. She was a heathen merit-seeking elder who had had one child a year and had lost every one—and here also there was no hereditary taint. She had come to me with the last two but could not persuade herself that my directions as to diet were worth while. She wished to have some omnipotent medicine.

Why do these children die? They are breast-fed, and the women of the Shan States are uniformly supplied with a great sufficiency of normal milk. They die because the Shans look upon rice and not milk as the staff of life. They simply cannot believe that breast milk is sufficient food for the infant. And of course the toothless child is unable to masticate rice. So as regularly as a Jewish child would be circumcised on the ninth day, these children are fed rice from the third day on—rice masticated by the mother, removed by hand from the maternal mouth and inserted in the mouth of the child.

But if they could stand it, we couldn't; and so after this lady's third child had been born and had died during my first term we stopped preaching hygiene and proper dietetic care of the newly born and got to work. An old toothless Kachin grandmother came to bazaar one day with an orphan grandson she didn't know what to do with. She was a Christian and absolutely without symptom or sign of monetary possessions. So we took her child into the hospital with two plans in view—to teach our nurses pediatrics, and to teach our Shan brethren by example as well as precept. The baby was an imbecile, but we didn't care, because we were only anxious to raise up a good physical specimen; we cared nothing about whether or not he had any brains. In fact, the Shans get lots of kick out of an imbecile. In a way, the fact that the child wasn't all there made it rather easier on the nurses; for he sat up later, and didn't begin even to crawl until after he left the hospital. But the

population of whole villages would stop in on their way home from bazaar to see this circus marvel of a Kachin baby that was getting fat on nothing but cow's milk five times a day. They couldn't believe for a long time that we weren't slipping the baby some chewed rice on the side. And a cuter little imbecile you couldn't hope to see. Our nurses neglected all the rest of the hospital and bathed and powdered the little rascal until people almost wondered whether the child had white blood. His grandmother was so pleased that she would beg, borrow, or steal a rupee and some unhealthy vegetable or other in order to have something to bestow on us every bazaar day. Finally she took the child home on a mixed diet, and we have had a splendid living advertisement for rational care of the infant.

As a result of this first child we soon had to turn away offers of children.

I was called one day to deliver twins in a village five miles away. The mother

felt that fate had played her a dirty trick, as she had already had a dozen, and while her mind had been resigned to the idea of having one child, two at once was a little too much. When I came back to pay my party call I found her, one day, feeding the children out of a bottle instead of nursing them. That was her way of punishing them for being twins. She complained because the children were spunky and wouldn't take the bottle. I noticed that the children were looking terribly ragged, so I asked them to produce the bottle. They brought forth a milk-bottle with a rubber hose on it a foot long, and on the end, for a nipple, they had the rubber bulb of a medicine-dropper. You didn't need to sample the milk to find out what was wrong. The mixture was a brand of condensed skim milk and dirty water, and it had been mixed up such a long time that it was not only sour but rotten, and they were still offering it to the twins. I urged her to come to the hospital with the children,

promising to show her by repeated demonstration how they prepare the formula and give it to the children, but she claimed she was too busy.

"You adopt the children and bring them up," said she.

"You're very kind," said I, "but I have two tornadoes and a typhoon already of my own." So the children said good-by and passed on out.

In our ward we always have three or four on hand but more than that took too much of our nurses' time, and we found we were unable to obtain milk. We have had also to take care lest children be left with us that might not be returnable at the end of a year.

Milk is one of the problems of our medical work. In any really Indian community, cow's milk, such as it is, can always be obtained for a price. The Shans, however, do not milk their cows and will not drink milk, except the sweetened condensed milk which they dearly love. Why they have missed entirely the use of this

important food I do not know. There is, however, a reason why they will not sell us milch cows. They have an idea that we use *all* the milk from the cow and that we do not feed the calf with other food. It does no good to tell them that the calf gets at least half the milk in addition to other food given, nor does it do any good to show them that the calves of mission cows are fatter than their own. They will not sell. Nor will they sell the milk. We depend for our milk entirely on the Indian milk-seller who makes a profession of securing cows in the by-ways and hedges and sells us the milk at twenty-five cents for three pounds. Where one is caring for a number of children for whom no fees are obtained it becomes apparent that the milk-bill is a very real financial strain.

At this stage of the story people always mention goats. Why do people think that a goat can be the solution of any problem, I wonder? I will admit that a goat gives a surprisingly large

amount of milk of excellent quality, but only the uninitiated would look upon a goat as a settler of problems. It is an inciter of new problems. Wherever there is a goat there is no mission comity.

Why doesn't some one mention buffaloes instead of goats? It may come down to that eventually, for the water-buffalo gives a lot of really nice tasting milk—if only one could get rid of these prejudices.

What has been the result of the opening of our infant feeding department at the hospital? First of all, and best of all, eleven Kachin and Shan girls have been shown to their own satisfaction the value of decent care of children. Not only will they be able to raise their own children normally but children of neighbors will be given health.

Secondly, we have kept alive a half-dozen orphans, two of them children of princes. Thirdly, some of the villages are at last being slowly converted to regularity in feeding and to the withholding

of rice until the teeth appear. I remember especially the child of one of our old schoolgirls which has come through two years of decent care, the finest, plumpest, healthiest, happiest little brown plaything you could ever hope to see. May there be more of them!

XI

FREAKS

We are not always glad we have cured patients! A gentleman came to us from the extreme North of Burma for a series of treatments. He needed the medicine, so though he had no cash, we kept him for weeks while we improved his condition very markedly by costly intravenous treatment. One day when we were just about to pronounce him cured he disappeared from the hospital. We were rather glad to be rid of him so easily and hoped he would never return. He didn't. That afternoon he attended the great bazaar across the river in China. He loitered around until he saw a gentleman with a good-sized wad. Then he preceded the aforesaid gentleman down the homeward pathways, and cut him down with his sword. He failed to count

on a friend who was accompanying his victim. This friend was so provoked by the unseemly conduct of my ex-patient, that he drew his own dagger and completely ruined my remarkable cure so that he was good for nothing but six feet of soil. It would have been lots cheaper, any way you look at it, if I had given the old boy an overdose the first time I treated him!

My mother was called upon to help a gentleman who had been hurt in a rather interesting manner. He was an ox-cart driver. An ox-cart, you know, is supposed to travel only a couple of miles an hour when road conditions are at their best. This driver, apparently, had forgotten this fact. When he became exasperated at the slowness of his team, however, he seemed to remember that beef in Burma is too tough for ordinary consumption and that the English eat mostly only the extreme front and rear of the animal, the tongue and the tail. So he sank his teeth into the unoffending tail

THREE MORE GOITERS ARRIVE FOR TREATMENT

of his off ox. The ox misunderstood the sealed instructions and accidentally jerked away his tail, and with it all the front teeth of his driver.

A Chinese-Shan Prince came from a State in China about seven days' journey north, bringing his chief princess to us for treatment for some obscure complaint. She wore about ten layers of jackets, as most of them do. But her second layer was the most interesting. There were about six buttons on that coat. Each button had been made from an American twenty-dollar gold-piece. They knew a good-looking coin when they saw one, and so did I, but that is all the good it did me.

In the days before my wife became anæsthetist-in-chief to the hospital, we had an opium-eating Buddhist priest come to us from way up in China, somewhere. Chloroform is a potent drug, and in America they are scared to death of it, but we just about had to soak that man from head to foot in it before he

would condescend to slumber long enough for us to remove a lot of stones of which he was tired. And even at that he didn't go to sleep with chloroform until we had had a wrestling-match all over the floor. He had a brother with him who was supposed to take care of him. But as it turned out, the stone case had to get up after the operation and take care of his brother. It reminded me of the newly-wed husband. After the birth of their first child had been successfully negotiated, he was so worn out that he had to be put to bed while his wife got up and waited on him. It was just that way here. A couple of days after the operation I was away for the day. On my return I was met by an excited group who told me that the priest's brother had gone insane, had driven out all the patients from one of our auxiliary hospital buildings, and had established himself as dictator, armed with a native broadsword. It gave us more exciting sport than we had had in months to rid him

of that sword. We borrowed some chains from the local police and chained him up until he had calmed down, a couple of weeks later, enough to be shipped home. What is one to do with this type of patient? Our auxiliary buildings have mat walls which are a poor substitute for the American padded cell. Our main hospital had wooden walls, but we could not have afforded to buy new glass for the windows; we cannot afford locks for the windows, nor iron bars, nor can we drive out enough of the critically ill patients to make room for a maniacal case. Even if we had a padded cell, psychiatric cases need more of a physician's personal time for psychotherapy than do even the major surgical cases. And yet there are lots of these cases, and so far in all of the Shan States there is no mental sanatorium.

Frequently the by-products of our cures are more important to the patients than the cure of the symptom for which they came. There was an old Kachin

lady with nine stones in the bladder. About ten years previously she had submitted to the tender offices of a Chinese quack who thought he could operate. He began the operation with a sword, and an incision was made—I saw the scar of it—but according to the old lady she had such a hemorrhage that the doctor ran away. We removed the stones, and the next afternoon after about twenty hours of continuous sleep, the patient almost kissed us. She said that aside from little catnaps interrupted by excruciating pain this was the first real sleep she had had for a dozen years. I thought that patient had sleeping sickness before we were done with her.

Mr. Sword, on one of his trips, came upon a little Kachin girl who had gone through an attack of poliomyelitis some years before. And he had nerve enough to send that girl down to me to patch up! She had suffered an extensive paralysis. The Kachins use no mattresses. They sleep on a thin hand-woven cotton quilt.

So the girl had gotten a tremendous bedsore over the sacrum, larger than the palm of my hand. Then they turned her on one side and then the other with the result that the girl had acquired still more remarkable decubitus ulcers over each hip. And still she couldn't die. So the only place left for her to lie on was the front of her body. But her legs had by this time been drawn up by the paralysis so as to be in the way, and they had to put her in a kneeling position, and in this kneeling position the girl was now permanently fastened. Our factory does not turn out new arms and legs, but at least we did contrive so that she was able to sleep on her back with straighter legs after a number of efforts.

Not so long ago I watched an expert eye surgeon in one of our great American clinics manfully control a great desire to swear. He was removing a cataract from the eyes of an old gentleman who had never learned how to make his eyes go where he was told. The more the doctor

told him to look down, the more did the eyes roll heavenward, and go through all the contortions which one dreams of in his pet nightmares. In America this man was an exception. I have never yet found any one in Burma who could look down and keep his eyes there when told. A cataract is a major operation to us. It takes two of us to keep the eyeball directed southward, and even then the patient seems to be having a mild convulsion of all the eye muscles as we go ahead with the operation.

One of the most delightfully naive patients I ever had was a Kachin army officer who had heard some exaggerated reports of the results obtained by surgery in our hospital. He had a neurotic abdominal condition about which he came to see me in Bhamo. He told me he had a pain in his stomach. He pulled out his sword and handed it to me. Then he lay down on the floor, loosened his clothes, and said, "All right, doctor, go ahead and cut."

The Buddhists were having a great feast in Namkham. The Lord Mayor did me the honor to invite me down. But at the same time I was invited to the home of a certain lady who had had an obstetrical accident. We parked the car down in front of the lady's house. I had just ruined my own and everybody else's disposition painting the car with paint which cost me a missionary's fortune. That car looked too good to be true. All the native children round about couldn't believe it either. An argument arose which had to be settled somehow, so they settled it in the only way possible. They took nails and scratched the car to make sure, and of course it wasn't true! What upset me most was that I missed the feast, my car never looked the same again, and, while the woman didn't die, I never got a cent in fees.

We were galloping up past the hospital one evening. Over my right shoulder I saw a new patient had arrived. He was standing by the hospital gate watch-

ing us. Nothing was said, so, as it was suppertime, I ate before going down to the hospital for final rounds. An hour later one of my nurses came running up to say that the man was dead. I did a post mortem, but couldn't find a thing wrong with him.

We tell our stories about the goiter case who was present at a feast two hundred yards away the day after the operation, and people say patients have more resistance in Burma than they do in America. "You just can't kill them out in Burma, can you?" One good soul intimated that the reason we went as medical missionaries was because it was so much easier work to cure patients out there! But we have just as many cases that die when you can find nothing really wrong. If they get tired of living, you might just as well arrange for the funeral. So I am not convinced that these people are so much tougher and more resistant than Americans. But certainly they have an infinite capacity for faith. And if you

can make them believe they are going to get well, you can stop giving medicines. Before every operation we have a prayer by a nurse who can pray in the patient's own language.

XII

MOTHER HUBBARD'S CUPBOARD

YES, we have one. Our medicine-chest. And we have all we can do to keep it from getting bare. Our favorite indoor sport is going to the cupboard.

American churches have such a terrible time with giving "one-twelfth every month." So the Boards have to juggle things a good bit to keep their own cupboards from getting bare. The Board, somehow or other, always manages to give to the missionaries their "one-twelfth every month," and the missionaries can absolutely rely upon receiving their appropriations when due. And one-twelfth every month is fine for all stations except border stations which have to depend upon crude transport facilities.

We use mules for four days from the river. From December until May, a

mule will carry a hundred pounds or so for four days for five rupees, and sometimes even less. From June until December Mr. Mule refuses to budge for less than nine rupees. I don't blame him. I would myself, if I had a great big sore on my back and some one told me to carry a hundred pounds through mud to my knees for four days over the mountains.

To embarrass Mother Hubbard still further, the Northern Baptist Convention's fiscal year starts the first of May, or, rather, it ends the last of April; which gives us only one month of transport weather before the rains. No matter what a good juggler you are, your various accounts must inexorably balance on the thirtieth of April. You can't lay in enough medicines out of your one-twelfth every month for May to last you for the six months of bad weather.

Our cupboard is barest at the beginning of the rains, and yet the rains is the season when every one takes time

off to be sick. Lots of mules therefore bring medicines to Namkham during the rains at nine rupees per instead of at five per during the winter. Furthermore when emergencies arise large amounts of medicine have to be telegraphed for, and the postage rate for packages of heavy medicines is suicidal to one's bank-account.

It is conceivable that a religious toeing the mark by the churches in the matter of "one-twelfth every month" might make possible a lump contribution from America for missionaries who do not live on the railway or steamship routes.

The personal supplies of the missionary can be cared for rather well. One is apt to eat as much flour or as much sugar in 1927 as he ate in 1926. But there is a very marked variation in the amounts of medicines which one needs during the different years. The nicest arrangement would be an overstocked cupboard.

XIII

HIGH FINANCE

The people at home often refuse to give because "money is being wasted on the field." How much American money are we wasting in Namkham on the medical work? We "waste" exactly six hundred dollars in our hospital every year. We have a thirty-bed hospital now; we will soon have a new hospital of sixty-five or seventy beds. I suppose when we have these ninety-five beds we still will continue to receive the six hundred dollars for their maintenance. In 1927 we took care of over 600 hospital cases, and 6,600 different men and women in the dispensary. We took care of a total of 23,000 men for one day on six hundred dollars. That means that we were "wasting" something like two cents and a half of American money on a sick

man for a day. And that two cents and a half is supposed to furnish the patient's medicines, his nursing, and his food for the day. You can readily understand then why our patients are fed nothing but coarse rice and boiled mustard leaves or their equivalent, while they are in the hospital. We feed no soft diets or liquid diets to our patients unless they are moribund. It may be interesting to note that that same six hundred dollars, if put into an American hospital, would take care of only about a hundred or a hundred and fifty patients for a day, because it costs an American hospital from four to six dollars a day for a patient. We are, therefore, able to give American Baptists about a hundred and fifty times as large returns on their investments if they invest in mission work as they would otherwise be able to get investing in America.

A great deal is said nowadays about making the field work self-supporting. This will be quite possible if the economic

condition of the Shan States ever equals that of Burma. There is now, however, no ready money in the Shan homes except for the occasional trader. The people have no real way of saving money as there are no banks. They save money in one of three ways. They either bury it in the ground like the man with the one talent, or they invest it in live stock, or they convert their coin silver into plaques and medallions with which they cover their wife's garments. Some of the women come to bazaar loaded with silver. It is difficult, in view of these facts, to persuade the people to give you large fees for your medical services. A large fee would mean mortgaging off the wife's clothing and might possibly lead to serious trouble. I have had a calf given me to pay for an operation, two cows, a tiny little mare and her colt, and a little black goat. The little black goat was the cause of so much trouble between us and our colleagues, that I often wished I had cut the patient somewhere else before he

gave the thing to us! The average fee for a goiter operation is twenty-five or thirty cents. The largest fees I ever received were thirty and sixty dollars respectively for work done on princes.

We have at last been able to insist that some sort of a payment be made for medicines received, even though the amount may be only half a cent for a nickel's worth of medicine. In this way we secure in the aggregate quite a sum of money. We receive more assistance from the British Government for our hospital than we do from America, but we are now getting more from the patients than we do from the Government. By a judicious building up of the self-help idea, we hope to have the natives pay an increasingly large portion of the total expenditure.

I used to complain a good deal because I only received six hundred dollars a year for the maintenance of this hospital work. I have recently, however, been talking to another Baptist medical missionary who

receives only seventy-five dollars a year. His people, too, are as poor as mine. His hospital is worse than mine and his medical need as great. I have been a little ashamed since then.

You see there have been a number of eminent leaders who have felt that medical work should be at once made self-supporting. Only such medical work should be done as can be paid for on the field. In this way, the theory runs, the natives will never have a proposition turned over to them greater than they can afford to maintain. Devolution will be easier.

The only trouble with the theory is that it is all wrong. I have yet to find an American hospital which is not heavily endowed or else supported by munificent free-will gifts. If there are any, they either do no work for free patients, who are so poverty-stricken that they simply cannot afford to pay for treatment, or they do not do good work. And this is in America, the wealthiest country on the

globe. Yet we ask that hospitals, whose prime task is to reach the destitute and thus bring them to Christ, shall from the start be self-supporting! Or we give them anything up to a dime to take care of a patient for a day!

Of course if we develop the medical work only as the indigenous brethren themselves are able to support it, the devolution of that hospital upon the natives later will be quite easy, because there won't be anything to devolve!

As I see it, either it is wrong to send medical missionaries to China, Africa, and India, or it is right. If it is right to send medical missionaries, they ought to be allowed to be medical missionaries, or else we ought to tell applicants quite frankly that they shall not be allowed to do medical work.

We will not accept applicants for appointment as medical missionaries unless they are qualified graduates of the finest medical schools in the States. No graduates of a Class B school need apply. Yet

when he goes to the field we are not prepared for him to be always a real medical missionary.

So many people say that it is wrong for our Board to have so many medical stations since we do not have the funds to support them all well. They think it would be much more sensible that there be only a few hospitals, and that they be model institutions.

But would it be? I hate to think of the hundreds of thousands of people on the frontiers of Burma, China, India, the Philippines, and Africa, who are now being served by hospitals like mine, who would be without medical attention at all if we adopted that plan. It is true that the medical missionaries of the frontiers cannot be specialists in any one line of medicine as are our medical confrères in America. But they are all specialists in Waste-basket Surgery. And, specializing in Waste-basket Surgery, they are perhaps of some value in the carrying on of the work to which they are appointed, sans

all the conveniences deemed necessities in America.

I have found our people in the North of Burma extremely anxious to do what they can.

One of the first patients I ever had was a Chinese with keratitis. He was in the hospital for months while we used everything at our disposal to cure him. His sight was very much improved when he left, and I was terribly provoked at him because he gave us nothing at all in payment for medicines received. Three years later a visitor came to call. I had a terrible time getting him off his knees, and I nearly fainted when he gave me a roll of thirty silver rupees. My keratitis patient hadn't a cent when he left the hospital, so he had gone back to his home in China and had slaved and saved for three years until he had collected enough money to make us a present of which he need not be ashamed.

The spirit of giving what they can is drilled into them. When we first an-

nounced that every patient who came to the hospital must pay a copper or two for their medicines the number of dispensary patients at once decreased. After two months, however, not only had the number of patients returned to the normal, but had gone well beyond the usual daily number.

XIV

RESULTS

But what sort of spiritual results can a hospital of this sort point to? It was only six years ago that we went on those profitless evangelistic trips. We could not mention the name of Jesus Christ in any place or the people would get up and leave. During that time we have had hospital work—and such hospital work. But a change has certainly taken place among our people. Now when we go on these evangelistic trips we no longer have to bribe the people to come. We actually send word to them a week in advance. We tell them that on next Friday night—we go on Fridays because our teachers insist on going with us—we are coming to their village to talk about Jesus Christ. We warn them that we are bringing no medicines with us so that the sick need not apply. But we promise them that if

they will come to that meeting at seven o'clock we will preach to them as long as they can stand it.

We arrive at the village about dusk and find that at least fifty or a hundred men and women are gathered beside the hearth of their chief; once there were two hundred and fifty. They are not the rabble of the village as in the old days. They are the finest men and women there. We begin to preach to them at seven and do not stop until they begin to fidget and twist and turn and yawn; and that never happens until 11 p. m. It does not usually happen until one or two o'clock in the morning, and several times Mrs. Seagrave has been provoked at me because we weren't getting enough sleep.

On one of these first trips, we were still unable to believe our eyes—that these people were really anxious to listen. So after we had been preaching steadily for about two hours, one of our teachers got up and said, "Folks, I want to talk to you about the value of an education."

That was as far as he got! In the back corner of the room an old Buddhist was sitting, one of the class who, because they have made the necessary donations to the monastery and have given the required number of feasts, are known in the Shan States as *Hpakas* or meritorious elders. He spoke right out of turn and almost broke up the meeting.

"This morning," he said, "I was in the city of Mong Mao, twenty miles away, when somebody told me that you Christians were coming to preach in our village. The minute I heard that, I hurried home on foot so as to be able to be present. And then instead of preaching to us about Christ, like you said you would, you go talking about all sorts of things. For goodness sake," he said, "get back to your subject."

Through the medical work of the hospital one meets on very intimate grounds a very large number of people whom he would never see in any other way—and they are in a receptive mood. They see

MY OPERATING-ROOM

a white man stooping so low as carefully to wash off filthy sores, removing whole families of maggots; and they can't help but listen to him after that. In our wards is a most heterogeneous bunch of patients lying side by side. A Kachin lying next to a Shan. Imagine it! They have always been hereditary enemies. In the old days the Shans were the élite, the ruling class. The Kachins were mountain bandits and lived off of the Shan's fields, whenever they could. They don't even like to go to school together—or to church. In preaching to Kachins, the greater elocutionary powers you have, the better they like it. Start using bombast to a Shan, and he walks out. But in the wards they lie side by side—Namkham Shans, Chinese Shans, all the numerous varieties of Kachins, Chinese, Lisu, and Palongs. And they not only begin to get each others' view-points on all sorts of subjects, but they begin to kid each other. When the doctor is dressing a Shan, the Kachins and Chinese and all the rest

laugh at his groans and yells—and he takes it in the way it's meant, for soon it will be his turn to jolly them on their way to the operating-room. The result is something that we are very proud of—the mixing together of these different races and their new understanding of each other.

The Namkham valley is the most turbulent section of the northeast border of India. A little unpleasantness occurs almost every year. I have spent a couple of nights in the trenches myself. You see it is the only level, broad plain of which both China and Burma own shares. So it is the only territory where an invasion of Burmese territory by Chinese brigands is feasible.

The last real unpleasantness occurred in the spring of 1922. Doctor Harper was there at the time. The bandits were being led by a son of the former king of Burma. About a week before the attack was scheduled to occur, the bandits began to worry about the health of the medical

missionary, so they wrote Doctor Harper a letter saying an attack was planned for such and such a date. Would he please clear out temporarily until the unpleasantness was over so that he might not be hurt?

Doctor Harper received a Kaisar-I-Hind Gold Medal from King George for what he did upon receipt of that note.

One rainy season I was called to visit a certain Shan prince of the Chefang State of Yunnan. I wasn't very anxious to go because the rain had been pouring for weeks, and it would mean a terrible journey on ponies for three or four days, and I was quite busy enough. But the messenger said that the Prince had called in all the devil-doctors and was still rapidly getting worse, and begged me so energetically to come that I finally gave in, and we started. The mud was up to the bellies of the horses most of the way, but we made fairly good time. When we crossed the border into China a guard of honor met us. A most impressive guard!

The vanguard consisted of one rifle. The rear-guard consisted of a marvelous breech-loading shot-gun with a wonderful hammer about three inches long. I had a creepy sensation as we rode along for fear that hammer would catch on the bough of a tree and release a load of buckshot into the posterior portion of my anatomy.

We got safely to the palace, riding through the city on our horses. Imagine it! The last white man who dared to ride a pony through the streets of Chefang almost started a riot, because you are supposed to dismount. But then, he was not a medical missionary. He was just an evangelistic missionary.

But they led me on horseback through the ornamental gateway to the palace (which leads nowhere—the gate stands by itself in the middle of the courtyard). I was taken into the formal reception-room where I drank the prescribed dose of tea. Then I was given a tub of warm water in which I gave the assembled

courtiers a demonstration of how an American washes his face, hands, and feet. I am sure they were disappointed because I didn't bathe.

I was finally taken to his lordship. He was manifestly suffering from malaria, and he was all ready to get well anyway, so my quinine worked wonders.

Two days later, I was finishing a wonderful night's rest on the inflated air mattress the Prince picked up somewhere in his travels, when an embassy came to take me to his lordship's presence. He had a great paper on which under the court seal were written in Shan and Chinese words something like this:

> Whereas the white doctor of Namkham has come four days' journey to cure us of a great disease, and whereas we have a very high regard for him, be it hereby known to all that this doctor of Namkham is henceforth my foster-brother and is entitled to all the rights and privileges connected with that office. Hereafter if at any time the said doctor sets foot within the confines of my State, he is to be furnished with an escort and conducted safely to my palace.

We had a good time at the palace—except that I nearly died of indigestion from the food they fed us. The Prince has visited me twice since then. On one visit we were able to divorce him of the opium habit, and on another we deprived him of a couple of nasal polyps which he did not seem to care for.

There is another Shan prince in that section of China immediately contiguous to Namkham. He is not a particularly nice man, and I understand that only one other white man besides myself has ever been admitted into the august presence. He sent for me one day to help his one and only daughter to pass as comfortably as possible through an attack of broncho-pneumonia into eternity. He was in the audience-chamber with a servant on either side of him preparing opium-pipes. It was a continuous affair with him. As soon as he finished one pipe he rolled over onto the other side and began again. I have never seen him away from the opium-pipe.

After his daughter's death he invited me several times to cure him of opium, but I had to tell him he wasn't man enough. I remained "court physician," however, and he sent for me one day to take care of his prime minister who was having a nasty attack of amœbic dysentery. Mrs. Seagrave went with me this time, and we reached the palace after a long hard day's trip on our ponies, Marion's pony trying to give her a bath wherever he could.

They gave us two bamboo couches in the front parlor on which to spend the night. But we couldn't make the spectators leave. About midnight we turned out the lights and still they stayed. Finally, when we had given up the idea of going to sleep at all, they moved away into rooms on both sides of us, but every half hour until morning a delegation, first of men, then of women, would come to the doors and peek in. As a result I am afraid another fond illusion has been shattered in the Shan mind—it seems

white people don't wear pajamas at night after all.

But we have managed always to keep on good terms with these people of the Chinese side of the border, and perhaps we have helped a trifle in creating a better feeling between the peoples on both sides of the line. No matter from which side of the line a patient comes, and no matter whether he is a Kachin, a Chinese, a Palong, or a Shan, he gets the same treatment. A certain English officer, who visited us, noted this fact and commended us because he felt that our hospital was an influence making for peace in that most turbulent section of the China-Burma border.

I spoke of Palongs. They are mountain people, but they are Buddhist. Very much so. Furthermore they are extremely timid and very afraid of surgery. They have been impervious to all our attempts to work among them until lately. We persuaded some of them finally to submit to the knife for various

ailments, and as a result of one of these surgical operations upon an old Palong gentleman we are this year opening up the first Christian mission school ever to be built in a Palong village. We were fortunate enough to save the life of another Palong, a young gentleman who was carried into the hospital one day more dead than alive. As a result last year we baptized the first Palong ever to be baptized in the history of the world.

Do our Christians ever amount to anything? There are in our station something like twenty or thirty men and women on our staff. Every single one of them tithes. And he doesn't pay off all the grocery and meat bills and the instalments on the radio and the new automobile first, and then look at the small change that's left and wonder whether he can afford to put a nickel or a dime into the collection-plate on Sunday as we Americans usually do. He does his tithing first. And in spite of the fact that these men and women have been doing

this for years, not one has yet become a pauper.

We have for some years been hoping to find a really intellectual and well-trained Shan with a vital conviction and experience of Jesus Christ who could become the evangelistic and educational missionary to his people—a sort of assistant missionary to myself. We had a man, but he was headmaster in my biggest school and as such received the tremendous salary of fifteen dollars a month. No evangelist in my field has ever received more than eleven dollars a month salary. We were very anxious to secure him, for he had a great deal of natural ability, not only as a teacher but also as a preacher. Hoping to obtain him eventually, I set him to work on our financial accounts, letting him keep his books in duplicate of my own so that he might be trained in this way also.

For two years he was willing to part with his larger salary so that he might do the more important work which I wished

him to undertake—but his wife was not convinced. They have passed through some deep rivers during the past year, and as a result I received a delightful letter from him a short time ago saying that his wife's objections had been overcome and that he was about to leave for the Seminary at Rangoon to fit himself for the new work. I learned later that this decision had been made in spite of an increase of fifty per cent. in his salary offered him by the education department.

There is nothing sissy about these Christian men. They are men with a real objective, and in some ways they put us to shame. Judged by the "Coleman Standard," our Namkham Shan church at the end of thirty years of mission work is as a rule a "leading church," and this year they have begun to do "foreign missionary" work among some immigrant tribes of Lahu a hundred miles away.

XV

OPTIMISM

At the end of our first term of service we returned to America with a number of determinations. We were going to hear so many powerful sermons in our own language that we would be able to preach a good one ourselves when we got back to Namkham. We were going to study medicine and surgery until the bank broke. We were going to get a new hospital if we died for it. We were going to get surgical instruments and hospital equipment that had never yet been relegated to the waste-basket; and last, we were going to try to secure a nurse; a real American girl properly trained and inspired for the exigencies of frontier work.

We succeeded in reverse order. We found the nurse, but no money for her

salary and expenses until Mrs. Eugene Levering of Baltimore started the ball rolling with a year's salary. The Baptist Temple of Philadelphia heard about it and seventy-one members more than finished the job. So we really got a whole nurse.

But the Temple, as usual went over the top, and the surplus, augmented by friends in Michigan, New York, Massachusetts, Pennsylvania, Illinois, Iowa, and Nebraska, has made possible the purchase of almost two-thirds of the absolutely essential equipment; so at least our new operating-room will be worthy of the name.

It is the policy of the Board, when putting up new buildings, to allow only a half of the cost to be secured outside the country, so that we were free to ask for only twenty thousand of the desired forty thousand dollars for a new up-to-date hospital building. My immediate predecessor in Namkham, Dr. Robert Harper, had put up every building but one in our

compound, and he had made up for that by building the Kachin Mission house. So when he died, three years ago, the Woodward Avenue Baptist Church of Detroit from which he was sent to Burma, decided that a new hospital in Namkham would be the most fitting Memorial they could build. They undertook to raise the twenty thousand outside of their regular work, and more than did so. As a result we have the authorized half of the funds for a new brick-and-stone building in Namkham which will be a monument during the coming century. It will furnish ward space for over seventy men and women. There will be the necessary administration and laboratory facilities. There will be an excellent dispensary section. There will be a wonderful operating-room, and best of all, if a patient positively desires to die (and everybody does eventually), there will be a room where he can die privately and happily to his own entire satisfaction. So we have half the funds, and we can reasonably in-

dulge some slight hope of getting the other half in Burma.

But the study of medicine and surgery more or less went by the board, and I am almost as ignorant now as when we went home to America.

As for sermons, I heard one in Oakland the day after we reached America, I heard one in Boise, I heard a few in Carlinville, Illinois, and one or two in Detroit and New York. The rest of the time I insisted on doing the talking myself.

Now we are on our way back and already we have left Honolulu behind. This is the last time we expect to review the occurrences of our first term of service. We are looking forward with high hopes for the new period of work. As far as we are concerned we have every reason to think gratefully of the Northern Baptists and to feel that they really need only to be told about the actual conditions in the mission fields, and they will respond with their own old-fashioned generosity.

But we also return in high hopes, because, as so many of our church friends have said: "You don't need to know anything to be a medical missionary. You can't kill those folks out there!"

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